

# Margaret F. Pinnell, Ph.D.

*She/Her/Hers*

## Curriculum Vitae

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Experienced, collaborative and culturally responsive academic leader dedicated to advancing cutting-edge, high-impact educational, research and community engaged programs that support the common good. Committed to building and supporting highly effective, expert faculty and staff teams that advance university mission and goals while finding meaning and joy in their work through the implementation of innovative recruiting, hiring and professional development. Passionate champion for diversity, equity and inclusion, cooperating with other stakeholders to strategize and enact initiatives that drive future growth and success. Dedicated advocate for the school, working in partnership with Advancement, alumni, donors, industry, community partners, and government to build collaborative, synergistic relationships.

### Selected Achievements

- Orchestrated continued program success, overhauling promotion and tenure policies to align with diversity, equity, and inclusion initiatives while recruiting and developing excellent faculty.
- Enhanced hiring processes by training search committees, providing enhanced dean's office support, centralizing advertising, and actively recruiting at professional meetings.
- Demonstrated excellent leadership and dedication to the organizational mission, earning the Lackner Award for advancing the Marianist mission and delivering significant growth and leadership to the ETHOS program.
- Cooperated to develop strategic plans promoting diversity, equity, and inclusion within School of Engineering.

### Education and Credentials

#### **Doctor of Philosophy (PhD) in Materials Engineering**

University of Dayton, Dayton, OH

*Dissertation: "A parametric study of the factors affecting the open and filled hole performance of fiber reinforced composite materials."*

#### **Master of Science in Materials Engineering**

University of Dayton, Dayton, OH

#### **Bachelor of Mechanical Engineering**

University of Dayton, Dayton, OH

### Professional Experience

#### *Administrative Leadership Experience*

University of Dayton, Dayton, OH

01/2011 – Present

#### **Assistant Provost for Learning & Executive Director of the Ryan C. Harris Learning Teaching Center (08/2022 – 07/2023)**

Oversee collaborative, university-wide work to support, promote and improve systems, practices and processes that enhance student and faculty academic engagement, holistic learning, and student persistence to graduation. Manage the day to day operations of the Learning Teaching Center which includes the Office of Learning Resources, Director of University Advising Initiative and Student Success, Director of Experiential Learning, Director of Assessment and Student-Centered Analytics, Director of Faculty Career Enhancement, Director of Academic Technology and Curriculum Innovation, and the Director of Faculty Development.

### **Interim Dean - School of Engineering (08/2021 – 07/2022)**

Guided school direction building strategic action plans targeting priorities including diversity, equity and inclusion, the COVID transition, and a new budgeting model. Promoted achievement of the University and School missions by building collaborative partnerships with alumni, industry professionals, the community, and potential donors. Aligned unit priorities with allocated funds to maximize budget utilization.

- Instituted a collaborative and consultative process with internal and external stakeholders to develop a School of Engineering Transition Plan that identified key strategic initiatives, and to prioritize the allocation of resources.
- Fostered critical partnerships with the School of Business Administration and the Arcade Innovation Hub to develop and advance Engineering Entrepreneurship and Innovation programs and initiatives.
- Restructured the dean's office for greater productivity, while also addressing pay equity gaps, position reclassifications, and advocating for and successfully recruiting and hiring key personnel.
- Oversaw significant facility renovations to promote a sense of community and workplace effectiveness, enhance aesthetics and safety.
- Fostered relationships with key external partners, including collaborative work in response to semiconductor initiatives in Ohio and across the US.
- Prioritized implementation of the School of Engineering Diversity, Equity and Inclusion Strategic Plan.

### **Associate Dean for Faculty and Staff Development – School of Engineering (08/2015 – 08/2021)**

Provided enhanced learning opportunities, created an excellent faculty and staff through recruiting, hiring, and innovative professional development. United faculty and staff around University goals, prioritizing faculty and staff development including workshops covering promotion and tenure, inclusive excellence, wellbeing, and research and teaching productivity and effectiveness. Maximized resource utilization, assigning funds to support priorities and reinforce goals while adhering to established budgets. Designed internal policies and procedures based on best practices.

- Revolutionized promotion and tenure policies, leading and synchronizing collaborative efforts to promote diversity, equity, and inclusion while recognizing a broader range of faculty activities, with the University's policy later modeled after the School's policy.
- Championed hiring of diverse staff resulting in 2/3 of new faculty hires being female or persons of colors, training search committee members on conducting equitable searches and coordinating advertising for positions.
- Provided opportunities for over 100 students and 15 faculty through co-creation of the Summer Undergraduate Research Experience.
- Conceptualized, created, and taught online Research Ethics course with two other professors, allowing students to research with faculty virtually to navigate COVID dangers while earning credit and developing skills.
- Prioritized diversity, equity, and inclusion serving on the leadership team responsible for developing UD Men for Gender Equity, and co-leading the development of the School's Diversity, Equity and Inclusion Strategic Plan.

### **Assistant Dean for Recruitment and Outreach – School of Engineering (01/2011 – 09/2012)**

Aided in the recruitment of a diverse student body to support school goals, acting as representative for the University and delivering persuasive presentations to prospective students, targeting local high schools, college fairs, hotel visits, and open houses. Directed learning opportunities for students, guiding engineering summer camps. Advised University decision making by serving as the voice of the School while representing the Dean's office on committees.

## ***Academic Experience***

### **Assistant Professor | Associate Professor | Professor – University of Dayton – Department of Mechanical and Aerospace Engineering (08/2001– Present)**

Ensure students meet learning objectives through the creation and use of innovative and engaging pedagogy, inclusive classroom practices, and well developed lesson plans and course materials according to curriculum requirements. Supervise student work in the community, classroom and laboratory, providing instruction and guidance to address knowledge and skill gaps. Engage in professional development, research and continuous improvement to enhance teaching performance. Expand field knowledge, conducting research and disseminating results via professional journals, books, and electronic media. Monitor comprehension of course topics, writing, administering, and grading

assessments to gauge progress. Remain an expert in engineering, reading current literature and participating in professional conferences.

- Earned Tenure in 2009 following excellent performance, leadership, and dedication to organizational goals.
- Enhanced departmental performance serving as a mentor for junior faculty.
- Secured University and international recognition leading the ETHOS program for 10 years, impacting over 200 students and community partners while positioning ETHOS as a flagship program at the University of Dayton.

### ***Professional Experience***

#### **Consultant, Dayton Regional STEM Center (DRSC), Dayton, OH 01/2008 – 05/2011**

Championed program objectives to expand STEM curriculum, collaborating with DRSC staff and consultants to revitalize the STEM Fellow Program. Translated current industry trends into K-12 curriculum to develop and promote quality STEM programs. Led curriculum development program, aiding scope development, task completion, and stakeholder management. United diverse partners including K-12 teachers, university faculty, and industry and government STEM professionals around mutual goals to synchronize actions and improve STEM programming.

- Participated in writing of K-12 STEM curriculum piloted, edited, and published on the DRSC website.
- Launched turnaround leading to international program recognition.

#### **Consultant, Air Camp USA (Montgomery County ESC), Dayton, OH 06/2009 – 05/2010**

Promoted aerodynamics and aviation serving as lead author to design and establish a comprehensive Air Camp. Extended program reach and learning opportunities building partnerships with aero-related organizations and industries across the Dayton region, including Boonshoft, Wright Brothers Airport, Sinclair, Wright State, and the USAF Museum. Created high-quality programming by gathering input from related organizations and professionals. Administered program by overseeing logistics for housing, identifying camp counselors, and publicity.

### ***Additional Experience***

#### **Engineers in Technical Humanitarian Opportunities for Service-Learning (ETHOS) Acting Director**

School of Engineering, University of Dayton, Dayton, OH

#### **Visiting Assistant Professor | Adjunct Professor – Department of Mechanical and Aerospace Engineering**

School of Engineering, University of Dayton, Dayton, OH

#### **Consultant – Retrogression and Re-Aging of 7075-T6 Susceptible Parts**

NCI Information Systems, Fairborn, OH

#### **Associate Research Engineer**

University of Dayton Research Institute (UDRI) – Structural Test Laboratory, Dayton, OH

#### **Mechanical Engineer | Co-Op Student**

Wright Patterson Air Force Base (WRDC/MLBC), OH

### **Recent Professional Development**

#### ***Leadership Development***

#### **Executive Leadership in Academic Technology, Engineering, and Science (ELATES Fellow)**

Drexel University, 2019 - 2021

#### **Emerging Leader Certificate**

University of Dayton Center for Leadership, 2015 -2016

#### **Creating Inclusive Communities Class and White Privilege Conference**

University of Dayton, 2016

#### **Leadership UD**

University of Dayton, 2011 - 2012

## ***Other Professional Development***

### **Institute for Applied Creativity for Transformation Fellow**

University of Dayton, 2017 – 2018

### **AsPIRE Professional Development for Tenured Faculty**

University of Dayton Learning Teaching Center, 2015 – 2016

### **Kern Entrepreneurial Engineering Network (KEEN) Teaching Fellow**

University of Dayton, 2015 – 2016

### **Integrating Curriculum with Entrepreneurial Mindset (ICE) Workshop and Course Module Development**

Kern Entrepreneurial Engineering Network (KEEN), 2014 – 2015

### **Chaminade (Marianist Leaders) Seminar and Pilgrimage**

University of Dayton, 2013

### **ENGAGE Strategy Implementation Workshop**

National Science Foundation, 2011

### **Service-learning Strategies: Planning, Implementing, and Refinement**

Southern Ohio Council on Higher Education (SoCHE), 2011

### **Developing Learning Outcomes Workshop**

University of Dayton Learning Teaching Center, 2011

## **Awards and Honors**

- Bernhard Schmidt Chair in Engineering Leadership, University of Dayton
- Lackner Award, University of Dayton
- Key Influencer, Blue Angels
- First Place Paper Award at ASEE NCS and Best Zone II Paper, ASEE (twice)
- University of Dayton Alumni Award in Teaching, University of Dayton
- SOCHE Faculty Excellence in Teaching Award, Southwestern Ohio Consortium of Higher Education
- Best Female Professor Phi Sigma Rho, University of Dayton Phi Sigma Rho Chapter
- Excellence in Education Award, Ohio Magazine
- Outstanding Teaching Award, American Society of Engineering Education – North Central Section
- Award for Excellence in Teaching, University of Dayton – School of Engineering
- Honorary Member, Tau Alpha Pi
- Service Award, Buckeye Trails Girl Scout Council
- Community Partners Award, Buckeye Trails Girl Scout Council
- Nominee, Campus Compact Thomas Ehrlich Faculty Award for Service Learning

## **Recent Service**

### ***University Level Committees and Task Forces***

- Member, Workforce Recruitment, Retention, and Advancement Committee, 2021 – 2023
- Member, Enterprise On-Line Task Force, 2020 – 2021
- Member, Chapel Renovation Committee, 2012 – 2016
- Member, Presidential Search Committee, 2015
- Co-Chair, Stander Symposium 2013 – 2015
- Member, Carnegie Classification Task Force, 2013 – 2015
- Member, Mission and Identity Task Force, 2010 – 2012
- Member, Common Academic Program (CAP) Writing and Coordinating Task Force, 2008 – 2009

### ***University Service***

- Member, Academic Senate, 2020 – 2022

- Planning Team & Council Member, Women’s Advisory Council for UD Men for Gender Equity, 2018 – Present
- Member, Faculty Development Committee, 2018 – 2023
- Member, Stander Symposium Committee, 2016 – 2021
- Member, Global Education Symposium Committee, 2016 – 2023
- Member, Leadership Development Action Team, 2016 – 2023
- Member, Marianist Student Award Selection Committee, 2015 – Present
- UD Ally, 2012 – Present
- Associate, Marianist Educational Associate, 2010 – Present
- Member, Hanley Sustainability Institute Strategic Planning Core Committee, 2019 – 2021
- Member, Associate Provost Philip Anloague Transition Team, 2020
- Member, Computer Science Building Naming Committee, 2020
- Faculty Participant, Creating Inclusive Communities, 2016
- Member, HLC Accreditation Working Group, 2015 – 2016
- Faculty Mentor, Women’s Center, 2012 & 2014
- Member, First Year Orientation Welcome Team and First Lecture, 2008, 2011, & 2014
- Committee Chair & Faculty Development Committee Member, LEADER Mentoring Network, 2011 – 2013
- Member, TREND Group, 2009 – 2013
- Ex-officio Member, CAPCC, 2011 – 2012
- Member, Women’s Leadership Group, 2011 – 2012
- Facilitator, Engineering Innovation and Design for the Teaching Fellows Program, 2012
- Organizer, Civic Engagement Workshop Organizer, 2011 – 2012
- Trained as a UD Ally (advocacy and support program for LGBT community on campus), 2012-present
- Mentor for a faculty member through the Women's Center (2012 and 2014)
- Facilitated an "Inside the Studio" type session on Engineering Innovation and Design for the Teaching Fellows program, Fall 2012.
- First Year Orientation Welcome Team and First Lecture, 2008, 2011 and 2014
- Member of the Chapel Renovation Committee Advisory Board, 2008
- Member of the Service Learning Steering Committee, Winter 2008
- Member of the Diversity and Inclusion Institutional Steering Team, 2005 -2007
- Alcohol Skills Training Program (ASTP) facilitator, 2003-2005
- Lilly Advisory Council, 2003-2005
- Facilitated Faculty Exchange Series, Developing Service Learning Opportunities with Interdisciplinary Collaborations Winter 2003
- Midterm Instructional Diagnosis (MID) facilitator, 2002- 2008
- Served on Marianist Minor Development Committee, 2002 - 2005
- Served on CIT Forum, 2002- 2005
- Attended Marianist University Meeting, June 2004, St. Mary's University, San Antonio, Texas, June 2005, University of Dayton and June 2011, St. Mary's University

### ***School of Engineering Service***

- Strategic Plan Team Leader and Writing Team, School of Engineering, 2015 – 2023
- Member, Dean Rojas Transition Team, 2014 – 2015
- Member, Bioengineering Steering Committee, 2009 – 2015
- Member, Search Committees for MEE Department Faculty Positions, 2012, 2013, & 2014
- Chair, MEE Department Search Committee, 2012 – 2013
- Committee Chair, Common Academic Program (CAP), 2011 – 2012
- Organized and facilitated Engineers Week, 2007, 2008
- School of Engineering Women's Initiative Committee, 2004-2005
- School of Engineering Enrollment and Outreach Committee, 2004
- School of Engineering, Department of Civil Engineering Chair Search, 2004
- School of Engineering Diversity Committee, 2003-2005

- Hosted Straight Talk with a Female Engineer and Dinners with the Real World through New Engineer Program, 2002- 2005
- MID facilitator, 2002-2005
- Served on School of Engineering Dean Selection committee, Fall2003
- Served on Advising Committee for Department, 2002-2003
- Served as Judge for student presentation through ASME, 1989-2002.
- New Engineer Program Mentor, 2001-2007

#### ***Student Recruiting and Prospective Student Counseling Service***

- Member, School of Engineering Faculty Ambassadors, 2017 - 2021
- Member, Chaminade Julianne Project Lead the Way (PLTW) Graduate Teaching Fellows, 2017 – 2021
- Participant, School of Engineering Recruitment Hotel Visit, 2011 & 2012, 2015 - 2019
- Member, PLTW Advisory Committee for Bellbrook High School, 2009 – 2015
- Member, STEM Center Advisory Council – Dayton Regional Stem Center, 2008 – 2013
- Member/Administrative Fellow, STEM Higher Ed – Dayton Regional Stem Center, 2008 – 2013
- Assistant Dean, Recruitment and Outreach – SoE, 2010– 2012
- Developer/Facilitator, UD Pre-Engineering Program, 2010-2012
- Judge, Local Elementary & High School Science Fairs, 2001 – 2017

#### ***Student Groups Service***

- Advisor, Wheels for Kids, 2011 – 2021
- Advisor, Marianist Student Community House, 2018 – 2019
- Advisor, To Write on Her Arms with Love, 2008 – 2019
- UD Girl Scout Advisor, 2006-2009
- Advisor, UD ETHOS Club, 2005 – 2012

#### ***Community Service on behalf of the University***

- Chair & Planning Group Member, DO STEM (Dayton Ohio STEM Ecosystem) Council, 2020 – Present
- Secretary, Arcade Innovation Hub Board, 2019 – 2023
- Member, Green County Career Center Advisory Board, 2019- Present
- Member, Miami Valley CTC Advisory Board, 2023 - Present
- Member, PLTW Board for Sugarcreek Local Schools, 2007 – 2015
- UD SoE Representative, TechFest Ribbon Cutting, 2011
- Conducted material tests pro bono for non-profit organizations, Aprovecho, Grupo Fenix, 2002-2006
- Facilitated various service-learning projects in the classroom including:
- Girl Scout Wall Project in MEE 312 with HSS students, 2002-2006
- ETHOS stove material testing in MEE 312 L , 2002-2011
- Dayton Art Institute, 2001

#### ***Professional Service***

- Member, Women in Engineering ProActive Network, Governing Board, 2022- Present
- Member, ASEE Committee on Diversity Equity and Inclusion Executive Committee and chair, Institutional change Team, 2022 - Present
- Member, Ohio Project Kaleidoscope (OH-PKAL) Governing Board, 2018 – Present
- Regular Reviewer, Journal of STEM Education, 2015 – Present
- Editorial Board Member, International Journal of Service Learning, 2013 – Present
- Regular Reviewer, ASEE International Conference and Exposition and North Central Section, 2008 – Present
- Review Panel Member, NSF Graduate Research Fellow Program, 2013 – 2014, 2016 – 2019
- Social Media Coordinator, CoNECD Collaborative Network for Engineering and Computing Diversity, 2017 – 2018
- Community Engaged Division Program Vice-Chair, American Society of Education, 2017 – 2018
- Community Engaged Division Program Chair, American Society of Education, 2016 – 2017
- NSF Review Panel and Ad Hoc Review Member, 2011, 2015-2019

- Reviewer, Journal of Cleaner Production, 2017
- Reviewer, Journal of Testing and Evaluation, 2016
- US Technical Advisory Group Member, Clean Cookstoves and Cooking, 2013 – 2015
- Reviewer, The Science and Engineering of Materials 6<sup>th</sup> Edition Askeland, et al for Cengage Publishers, 2013
- Reviewer, Advances in Engineering Education, 2013
- Manuscript Review, Advances in Engineering Education, 2011
- STEM Fellow/STEM Administrative Fellow, STEM Advisory Council, Regional STEM Council, 2007 – 2011
- Reviewer for Global Education for Engineers Workshop, Summer 2008
- Reviewer for papers for FIE conference, 2008
- Served as Session Chair for 3rd Annual Dayton Engineering Sciences Symposium held at Wright State University, Nov 2007
- Helped to organize the 2nd Annual Dayton Engineering Sciences Symposium held at Wright State University, Oct30, 2006
- Reviewed papers for the SAE World Congress, 2006, 2008
- Reviewed Papers for the International Journal of Service-learning 2006
- Reviewed papers for the ASEE Annual Conference, 2005
- Co-organized and facilitated The Role of Engineering in a Catholic University conference held at the University of Dayton, 2005
- Co-organized and facilitated Sustainable Resources 2004 pre-conference workshop entitled, Integrating Appropriate-Sustainable Technology and Service-Learning in Engineering Education was held September 27-29, 2004 at the University of Colorado, Boulder.

## **Publications and Presentations**

93 Total Peer Reviewed Publications, 369 Citations (Google Scholar)

\*Indicates undergraduate or graduate student, or K-12 Teacher

### *Peer-Reviewed Journal Publications*

- \*Papazoglou, D., Doll, A., **Pinnell, M.**, Erdahl, D., Osborn, T. (2024). Mechanical Properties of Selective Laser Melted Ti-6Al-4V Lattice Structures with Biomimetic Porosities and Strut Geometries for Orthopedic Implants. *Metals* 14: 232. <https://doi.org/10.3390/met/14020232>.
- \*Schilling, M., **Pinnell, M.** (2019). The STEM gender gap: An evaluation of the efficacy of women in engineering camps. *Journal of STEM Education Innovations and Research* 20:1, 37-45.
- **Pinnell, M.F.**, Franco, S., Petry, L., Mian, A., \*Doudican, B., Srinivasan, R. (2018). Leveraging regional strengths for STEM professional development: results from an NSF RET program focused on advanced manufacturing and materials, *Research in Schools* 25:1, 20-34.
- **Pinnell, M.F.**, Kurup, R., Stock, R., \*Turney, T., Wendell, T. (2018) Using engineering design to increase literacy among third graders, *Research in the Schools*.
- **Pinnell, M.F.**, Daniels, M., Hallinan, K., \*Berkemeier, G., (2014), Leveraging students' passion and creativity: ETHOS at the University of Dayton, *International Journal for Service Learning in Engineering*, Special Edition, 180-190, Fall 2014. ISSN: 1555-9033.
- **Pinnell, M.F.**, Fowley, J., Preiss, S., Franco, S., Blust, R., \*Beach, R. (2013) Bridging the gap between engineering design and PK-12 curriculum development through the use of STEM Education Quality Framework, *Journal of STEM Education*, 14:4, 29-35.
- Krane, C.M, **Pinnell, M.F.**, \*Gardner, C., \*Thompson, M., Coleman, J.T., Wilkens, R.J. (2011). Mechanical test methods for assessing porcine carotid and uterine artery burst pressure following Ex Vivo Ultrasonic Ligature Seal and Transection. *Journal of Testing and Evaluation*, 39:4, 514-521.
- Diestelkamp, W.S., Krane, C.M., **Pinnell, M.F.** (2011). Design of a factorial experiment with randomization restrictions to assess medical device performance on vascular tissue. *BMC Medical Research Methodology*, 11:75, 1-6. [www.biomedcentral.com/1471-2288/11/75](http://www.biomedcentral.com/1471-2288/11/75).
- \*Kolts, P., \*Haeck, A., \*Schlosser, R., \*Thomas, P., \*Kaczmarek, J., **Pinnell, M.** (2009). Solar Cooker Glass Failure Analysis. *International Journal for Service-Learning in Engineering*. 4:1, pp. 20-33. ISSN: 1555=9033.

- **Pinnell, M.F.**, Hill, S.I., \*Minch, A.J., (2006) Special Concerns in High Strain Rate Tensile Testing of Polymers, SAE Transactions, 2006-01-0121.
- **Pinnell, M.**, Fields, R, ,Zabora, R., (2005). Results of an Interlaboratory Study of the ASTM Standard Test Method for Tensile Properties of Polymer Matrix Composites D 3039, Journal of Testing and Evaluation 33:1, January, 2005, pp. 545-549.
- Still, D., **Pinnell, M.**, Ogle, D., von Appel, B.,(2003). Insulative Ceramics for Improved Cooking Stoves, Boiling Point, Number 49, 7-10.
- **Pinnell, M.F.**, (1995), Examination of the Effect of Composite Constituent Properties on the Notched-Strength Performance of Composite Materials, Composite Science and Technology, 56:12, 1405-1413

*Full Papers Published in Refereed Conference Proceedings*

- **Pinnell M.**, Petry, L., Bohrer, K., Schneider, K., \*Langston, M, Generas, E. Enhancing the cultural competence of K-12 STEM teachers through a global research experience. 2024 Collaborative Network for Engineering & Computing Diversity (CoNECD), February 25 – 27, 2024, Arlington, VA.
- **Pinnell, M.F.**, Schneider, K., Petry, L., Franco, S., Daniels, M., Anderson, A., \*Langston, M., Shepherd, M., \*Mock, M. (2020). Work in progress: involving teachers in international community engaged learning projects to enhance their understanding of engineering and intercultural awareness. 2020 ASEE Virtual Annual Conference Content Access, Virtual on-line.
- **Pinnell, M.F.**, Franco, S., Sableski, M., Smith, T. (2019). Using engineering design to increase literacy and STEM interest among third graders. Proceedings of the 2019 ASEE International Conference and Exposition. Tampa, FL.
- **Pinnell, M.F.**, Crosson, K., Altman, A., Hart, E., \*Schilling, M. (2019). Work in progress: can faculty assessment and faculty development be accomplished with the same instrument? Proceedings of the 2019 ASEE International Conference and Exposition. Tampa, FL.
- \*Schilling, M., **Pinnell, M.F.** (2019). The effectiveness of engineering camps as pre-college recruitment tools. 2019 CoNECD – The Collaborative Network for Engineering and Computing Diversity, Crystal City, VA.
- \*Schilling, M., **Pinnell, M.F.** (2018). The STEM gender gap: an evaluation of the efficacy of women in engineering camps, Proceedings of the 2018 ASEE International Conference and Exposition, Salt Lake City, UT.
- Mian, A. **Pinnell, M.F.** \*Doudican, B., Srinivasan, R. (2018). Lessons learned from a collaborative NSF RET program involving three regional universities, Proceedings of the 2018 ASEE International Conference and Exposition, Salt Lake City, UT.
- **Pinnell, M.F.**, Stock, R., \*Turney, V., Kurup, R. (2017). Work in progress: afterschool STEM/literacy program: a description of the process, Proceedings of the 2017 ASEE International Conference and Exposition, Columbus, OH.
- \*Doudican, B., LaDuca, B., **Pinnell, M.F.**, Franco, S. (2017). Work in progress: employing applied creativity and the engineering design process in the development of K-12 STE(A)M curriculum, Proceedings of the 2017 ASEE International Conference and Exposition, Columbus, OH.
- Petry, L., **Pinnell, M.F.**, Mian, A., Franco, S., \*Doudican, B., \*Lamb, A. (2017). Work in progress: collaborative community-based research experiences in materials and manufacturing, Proceedings of the 2017 ASEE International Conference and Exposition, Columbus, OH.
- Mian, A., **Pinnell, M.F.**, Petry, L., Srinivasan, R., Franco, S., \*Taylor, M. (2016). IMECE2016-66141: Summer research and collaborative professional development experience for NSF RET teachers in advanced manufacturing and materials. Proceedings of the IMECE2016 International Mechanical Engineering Congress and Exposition, November 2016. doi:10.1115/IMECE2016-66141.
- **Pinnell, M.F.**, Hart, B., Bistrek, L., and \*Tensley, S. (2016). Assessing the efficacy of K-12 engineering outreach “Pick-up and Go Kits.” 2016 ASEE International Conference and Exposition, New Orleans, LA.
- **Pinnell, M.F.**, \*Taylor, M., Petry, L., Mian, A., Franco, S., Preiss, S. (2016). Assessment of a collaborative NSF RET program focused on advanced manufacturing and materials. 2016 ASEE International Conference and Exposition, New Orleans, LA.
- **Pinnell, M.F.**, \*Gunasekaren, S. (2016). Special interest section of a core mechanical engineering course: biomaterial emphasis of an introduction to materials course, 2016 ASEE International Conference and Exposition, New Orleans, LA.
- **Pinnell, M.F.**, Hart, B., Bistrek, L., and \*Patterson, E. (2015). Empowering engineering students to engage in middle school classrooms in engineering innovation and design through outreach kits, ASEE NCS Conference, University of Cincinnati, OH.



- **Pinnell, M.F.**, \*Gunasekaren, S., \*Berkemeier, G. (2015). Project based learning in an introduction to materials course, ASEE NCS Conference, University of Cincinnati, OH.
- \*Gunasekaren, S., Berkemeier, G., **Pinnell, M.F.** (2015). Design of a new lab on three point bend test of a fiber-glass composite, ASEE NCS Conference, University of Cincinnati, OH.
- **Pinnell, M.F.**, Franco, S., Preiss, S., Blust, R., Rowley, J. \*Beach, R. (2013). Innovating education for the next generation of engineers: results of an NSF-RET program focused on innovation, 2013 ASEE International Conference and Symposium, Atlanta, GA.
- **Pinnell, M.F.**, Franco, S., Preiss, S., Blust, R., \*Beach, R. (2013). Engaging K-12 teachers in engineering innovation and design: lessons learned from a pilot NSF Research Experience for Teachers Program, ASEE NCS Conference, Ohio Northern University, OH. Best Paper Award – First Place and First Place Award for Zone 2, presented at 2013 ASEE International Conference and Symposium, Atlanta, GA.
- Rowley, J., Preiss, S., **Pinnell, M.F.**, Franco, S. (2012). Engineering innovation and design for STEM teachers and the STEM quality framework. 2<sup>nd</sup> P-12 Engineering and Design Education Research Summit, Washington, DC.
- Hallinan, K., Kissock, K., **Pinnell, M.**, Allen, J., and Bailey, R. (2008). Teaching Energy Engineering and Practice for a Sustainable Future in Undergraduate Mechanical Engineering, Intl. Mechanical Engineering Congress and Exposition.
- **Pinnell, M.**, Blust, R., Brahler, J., Stevens, M. (2008). Can Service-Learning in K-12 Math and Science Classes Affect a Student’s Perception of Engineering and Their Career Interests, ASEE/IEEE Frontiers in Education Conference.
- **Pinnell, M.**, et al, (2008). Innovation Entrepreneurship and International Experience, Proceedings of the 2008 Design Engineering Technical Conferences and Computers and Information in Engineering Conference, ASME.
- **Pinnell, M.**, et al, (2008). Making Connections Between Service and Engineering in K-12 Education, Proceedings of the 2008 Design Engineering Technical Conferences and Computers and Information in Engineering Conference, ASME.
- **Pinnell, M.F.**, Hill, S. I. (2008). Assessment of Techniques Used to Measure Strain During High Rate Tensile Testing of Polymeric Materials, 2008 SAE World Congress.
- **Pinnell, M.F.**, Strunks, M., \*Wallace, S., (2008) Infusing Service-Learning and Mentorship into Pre-Engineering Programs as a Means for Encouraging Diversity in the Field of Engineering, ASEE North Central Section Conference.
- **Pinnell, M.F.**, \*Schreier, C., \*Eger, C (2007), International Technical Service Immersions: Model for Developing Global Scientists and Engineers in Small to Mid-Size Universities, accepted to the 2007 ASEE Annual Conference and Exposition.
- Blust, R., **Pinnell, M.** (2007). Making Connections: Resources for K-12 Service-learning and Experiential Learning in STEM Disciplines, accepted to the 2007 ASEE Annual Conference and Exposition.
- **Pinnell, M.**, \*Mazaleyrat, L., Hansen, D. C., & Hobbs, M. (2007, January 1). Failure Analysis of Explanted Commercially Pure Titanium Screws. NACE International. NACE International Corrosion 2007 Conference and Expo.
- **Pinnell, M.F.**, Hill, S.I., \*Minch, A.J. (2006). Special Concerns in High Strain Rate Tensile Testing of Polymers, SAE 2006 World Congress, April 2006. (Accepted for publication in SAE Transactions, 2006)
- \*Eger, C., \*Schreier, C., **Pinnell, M.** (2006). The Engineers in Technical Humanitarian Opportunities of Service-Learning (ETHOS) Program at the University of Dayton as an Integrated Service-Learning Program Model, Proceedings of the 2006 ASEE Annual Conference and Exposition.
- \*Eger, C. \*Schreier, C., **Pinnell, M.** (2006). Student Perspectives of Curriculum-Integrated International Technical Immersions, Proceedings of the 2006 ASEE Annual Conference and Exposition.
- **Pinnell, Margaret F.** (2005). When Service Learning is a Failure. Proceeding of the 35<sup>th</sup> ASEE/IEEE Frontiers in Education Conference.
- \*Kleinhenz, P, **Pinnell, M.**, \*Mertz, G, \*Eger, C. (2005). Student Perspectives of Curriculum Integrated International Service-Learning Internships, Proceeding of the 35<sup>th</sup> ASEE/IEEE Frontiers in Education Conference.
- \*Eger, C. W., **Pinnell, M.F.**, Appropriate Technology and Technical Service in Developing Countries (ETHOS) Technical Elective Course, 2005 ASEE Annual Conference and Exposition, June 12 – 16, 2005.
- Zoghi, M., **Pinnell, M.**, (2005). Service-Learning Opportunities at the University of Dayton, 2005 ASEE Annual Conference and Exposition.
- Sandekian, R., Amadei, B., **Pinnell, M.** (2005) Service-Learning in Engineering: Summary of Findings from a Pre-Conference Workshop. 2005 ASEE Annual Conference and Exposition.

- Bielefeldt, A. R., Summers, R. S., Amadei, B., **Pinnell, M.**, Moeller, W., Sandekian, R., Shah, J. (2005). Creating an Engineering for Developing Communities (EDC) Emphasis in Environmental Engineering, 2005 ASEE Annual Conference and Exposition.
- Hill, S.I., **Pinnell, M.F.**, \*Minch, A.J. (2005). Standardization of High Strain Rate Tensile Testing of Polymers, 2005, Society of Plastic Engineers.
- **Pinnell, M.**, Daprano, C., Williamson, G. (2005). Evolution of a Multi-Disciplinary Service-Learning Project with a Community Partner, ASEE North Central Section (Best Paper Award).
- Snide, J.A., **Pinnell, M.F.**, Rakowski, W. (2004). Review of Structural Health Monitoring (SHM) Sensors for Aging Aircraft, ASIP 2004 Conference, Memphis Tennessee.
- **Pinnell, M.**, \*Nichols, S. (2004). Kidslearn in Introduction to Engineering Design, Proceedings of the 2004 ASEE Annual Conference and Exposition.
- **Pinnell, M.F.**, Chuck, L (2004). Developing Technical Competency and Enhancing the Soft Skills of Undergraduate Mechanical Engineering Students through Service-Learning, Proceedings of the 2004 ASEE Annual Conference and Exposition. (Best Zone Paper).
- **Pinnell, M.**, Daprano, C, Williamson, (2003). A Multi-Disciplinary Community Based Service Learning Project: The Girl Scout Wall Project, Proceedings of the 2003 ASEE Annual Conference and Exposition.
- **Pinnell, M.F.**, Chuck, L. (2003) Developing Technical Competency and Enhancing the Soft Skills of Undergraduate Mechanical Engineering Students through Service-Learning, ASEE – NCS Spring Conference, (First place paper award).
- Daprano, C., Titlebaum, P., **Pinnell, M.**, et. al., (2003). Overcoming Obstacles to Service Learning Through Collaboration and Assessment, NASSM Conference.
- \*Kuhr., S.J.M., **Pinnell, M.F.**, Eylon, D. (2003). Microstructural Study of Nano-Precipitates in RRA treated Al-7075 T6 Using AFM/UFM/STEM., Proceedings of the SPIE – The International Society for Optical Engineering, v. 5045.
- Bryden, K. M., Hallinan, K. P., **Pinnell, M.F.**, (2002). A Different Path to Internationalization of Engineering Education, 32<sup>nd</sup> ASEE/IEEE Frontiers in Engineering Education Conference..
- Whitney, T. J., **Pinnell, M. F.**, (1999). An Investigation into the Filled Hole and Clamp-Up Composite Performance of Carbon/Epoxy Laminates, Proceedings of the American Society For Composites Technical Conference, Technomic Publishing Co., Lancaster.
- **Pinnell, M.F.**, Knight, M., Pinnell, W. B. (1990). A Fractographic and Experimental Analysis of Composite Compression Test Methods, Proceedings of the American Society For Composites Fifth Technical Conference, Technomic Publishing Co., Lancaster, June 12-14, 1990, pp. 819-823.

#### *Book Chapters*

- **Pinnell, M.F.**, Hart, B., Crosson, K., Altman, A (2022)., Reimagining promotion and tenure as a tool for faculty development, In S. Linder, C. Lee, S. Stefl, K. High. (Ed). Handbook of STEM Faculty Development. Information Age Publishing. doi: 979-8-88730-045-0.
- Driskell, S., **Pinnell, M.F.**, Sableski, M. (2021). Virtual STEM stories: blending STEM and literacy in a virtual environment. Handbook of Research on Transforming Teachers' Online Pedagogical Reasoning for Engaging K-12 Students in Virtual Learning. Niess, M. Gillow-Wiles, H. (Ed). pp 494-514. IGI Global. doi: 0.4018/978-1-7998-7222-1.
- Bohrer, K., **Pinnell, M.F.**, Daniels, M. Jutte, C. (2020). Forming engineers for the common good. Diverse Pedagogical Approaches to Experiential Learning. Lovett, K. (Ed.) Palgrave Macmillan, Cham. [https://doi.org/10.1007/978-3-030-42691-0\\_5](https://doi.org/10.1007/978-3-030-42691-0_5).
- Sableski, M., **Pinnell, M.F.**, Driskell, S., Smith, T., Franco, S. (2020). STEM Stories: Connecting STEM and literacy in an afterschool program. In Henry, L., Stahl, N. (Ed.). Literacy Across the Community: Research, Praxis, and Trends. (pp 315-329). Routledge, 2020.
- Hallinan, K., **Pinnell, M.F.**, A Catholic and Marianist engineering education, In Heft and K. Hallinan (Ed.), Engineering Education and Practice: Embracing a Catholic Vision, J.L. (pp 59-89). University of Notre Dame Press, Notre Dame, IN, 2011.
- **Pinnell, M.F.**, In Search of Something More: My Path towards international service-learning in engineering education. In Downey, G.L., Beddoes, K. (Ed.). What is Global Engineering Education For?: The Making of International Educators. Synthesis Lectures on Global Engineering (Vol. 1, pp. 105-125). Morgan & Claypool Publishers, 2010.

- Hallinan, K., **Pinnell, M.**, A Catholic and Marianist Engineering Education, in Engineering Education and Practice: Embracing a Catholic Vision, J.L Heft and K Hallinan (Ed.), pp 59-89. University of Notre Dame Press, Notre Dame, IN, 2011.
- **Pinnell, M.F.** \*Schrier, C. Aaron, P., \*Eger, W., The Engineers in Technical Humanitarian Opportunities for Service-Learning (ETHOS) Program at the University of Dayton: Using Service-Learning to Provide International and Technical Experience, Service-Learning in Higher Education: Paradigms and Challenges, M. Moore and P. Lin, eds., University of Indianapolis Press, 2009.
- Co-Author on a Test Standard: SAE J2749 - High Rate Tensile Testing of Polymers [http://standards.sae.org/j2749\\_200811/](http://standards.sae.org/j2749_200811/), published November, 2008.
- **Pinnell, M.F.**, Daprano, C., Williamson, G., Chapter 9.3, The Girl Scout Climbing Wall Multidisciplinary Service-Learning Project, Service-Learning Engineering In Your Community by Marybeth Lima and William Oakes, Great Lakes Press, St. Louis, MO, 2006.
- Clarke, J., Maston, W., Neville, J., **Pinnell, M.**, Curriculum Module - Non-Metallic Materials, Sinclair Community College, 1999.
- Whitney J., **Pinnell M.** Characterization of Interlaminar Mode II Fracture Using Beam Specimens. In: Füller J., Grüninger G., Schulte K., Bunsell A.R., Massiah A. (eds) Developments in the Science and Technology of Composite Materials. Springer, Dordrecht, 1990.

### Technical Reports

*\*\*Annual and final reports to the NSF not included in this list*

- **Pinnell, M.**, et al, Assessing the Feasibility of Intraluminal Ultrasonic Tissue Welder: Phase 1-Test Design and Feasibility Study. UDR-TR-2010-91, July 30, 2010
- **Pinnell, M.**, et al, Assessing the Causes of Variability in Seal quality and Tissue Changes Resulting from the Use of Ethicon Endo-Surgery, Inc Harmonic Surgical system- Phase 2: Evaluating the contribution of Vessel Type, Infusion Fluid Composition, and Temperature on Seal Quality, UDR-TR-80-000148, August 2008
- **Pinnell, M.**, Krane, C, Coleman, J. \*Gardner, M., \*Thompson, M. Assessing the Causes of Variability in Seal Quality and Tissue Changes Resulting from the Use of Ethicon Harmonic Surgical System – Phase 1: Study to Determine the Factors Affecting the Variability of Vessel Seal Burst Strength, UDR-TR-2007-044, April 2007.
- **Pinnell, M. F.**, Childers, P., Materials Degradation of Structural Materials Due to Chemical or Biological Warfare Decontaminants, UDR-TR-2005-00136, June 2005.
- **Pinnell, M.**, et. al., Failure Investigation of a Generator Tube, UDR-TR-2005-00034, February, 2005.
- Snide, J.A., **Pinnell, M.F.**, Retrogression and Re-Aging of 7075-T6 Aluminum Alloy, NCI, October 2000
- **Pinnell, M.F.**, Whitney, T.J., Sjoblom, P.O. Global Approach to Characterizing Composite Strength with Empirical, Analytical and Progressive Damage Methods, UDRI-TR-1999-00076, August 1999.
- **Pinnell, M.F.**, Hill, S.I., High Strain Rate Testing of Two Automotive Plastics, UDRI-TR-1998-00120, September 1998.
- **Pinnell, M.F.**, Sawas, O., High Strain Rate Compression Testing of FSE 7570, UDRI-TR-1998-00122, September 1998.
- **Pinnell, M.F.**, Hill, S.I., High Strain Rate Testing of Polypropylene, UDRI-TR-1998-00042, March 1998.
- **Pinnell, M.F.**, High Strain Rate Testing, Letter Report for PO P95281000, October 1997.
- **Pinnell, M.F.**, Coleman, J.T., Static and Dynamic Mode II Fracture Toughness Testing of Composite Materials, UDRI-TR-97-153, October 1997.
- **Pinnell, M.F.**, Hill, S.I., High Strain Rate Testing of Four Automotive Plastics, UDRI-TR-97-147, September 1997.
- **Pinnell, M.F.**, Hill, S.I., High Strain Rate Testing of Automotive Plastics, UDRI-TR-97-01, January 1997.
- **Pinnell, M.F.**, Sjoblom, P.O., International Harmonization of Composite Materials Standards Project-Phase 1: Harmonization of ASTM D3039 and ISO 527-5, UDRI-TR-97-67, March 1997.
- **Pinnell, M.F.**, Sjoblom, P.O., Hartman, G.J., Analysis and Testing of a Radiator Air Center: Task 1: Mechanical Property Determination, UDRI-TR-96-42, April 1996.
- **Pinnell, M.F.**, Sjoblom, P.O., Hill, S.I., High Strain Rate Testing of Dylark 480P16, UDRI-TR-96-06, March 1996.
- **Pinnell, M. F.**, Snide, J.A., Sierakowski, R., Advanced Composites Survey, EMTEC/SP-07, Edison Materials Technology Center, Ohio, August 1991.
- **Pinnell, M.F.**, Sjoblom., P. O., Low-Velocity Impact Testing of Thermoplastic and Thermoset Matrix Composite Materials, WRDC-TR-90-4078, November 1990.

### *Conference Presentations*

- **Pinnell, M.**, Hahnenberg, E. (2024) State of Theology in Higher Education, Association of Catholic Colleges & Universities 2024 Annual Meeting, Washington, DC, February 2 – 4, 2024.
- **Pinnell, M.** (2021). Reimagining Faculty Rewards. KEEN National Conference. Virtual.
- Kapila, V., Bowen, B. **Pinnell, M.**, Cavicchi, K., Ragusa, G. (2017). RET Sites: Best Practices for Design Implementation and Sustainability. 2017 NSF EEC Grantees Conference, Arlington, VA.
- \*Burke, M., \*Mallet, D, **Pinnell, M.**,(2016). Additive Manufacturing of Wheel Chair Wheels, Research Experiences for Undergraduates Symposium, Council on Undergraduate Research, Hilton, Arlington, VA, October 23-24, 2016.
- Swami, R., Petry, L., **Pinnell, M.**, \*Doudican, B., \*Langston, L., (2016), AMSE-Sponsored Session: STEM and/or STEAM Design Challenges in Grades 4-12 Science Classrooms, National Science Teachers Association (NSTA) Conference; Columbus, OH; December 1-3, 2016.
- \*Doudican, B., \*Lamb, A., Petry, L. **Pinnell, M.**, Swami, R., (2016). Making STE(A)M Come Alive Through Design Challenges, Ohio Council for Teaching Mathematics 66th Annual Conference, October 27-28, 2016, Sandusky, Ohio.
- Hart, B. **Pinnell, M.**, Bistrek, Engineering Outreach Modules to Middle School Girls, 2015 WEPAN Change Leader Forum: Roadmap to Inclusion, Engineering Excellence for the 21st Century, June 9 – 11, Denver, Colorado.
- **Pinnell, M.F.**, et al, (2011). Panel Presenter "What is Global Engineering Education For?: The Making of International Educators", 41st ASEE/IEEE Frontiers in Education Conference, Oct 12-15, 2011, Rapid City, SD.
- Preiss, S., **Pinnell, M.**, Brown, K., Engineering a Ball Launcher, (2013). STEM Think Tank and Conference - Changing the Paradigm, Harpeth Hall School, Nashville, TN, July 17-19, 2013.
- Preiss, S., **Pinnell, M.**, Brown, K., Getting Started in STEM, STEM Think Tank and Conference - Changing the Paradigm, Harpeth Hall School, Nashville, TN, July 17-19, 2013.
- **Pinnell, M.**, Franco, S., Preiss, S, Blust R., \*Beach, R., (2012). Engineering Innovation and Design for STEM Teachers, NSF Engineering Education Awardees Conference, Arlington, Va, March 4-6, 2012.
- Preiss, S., **Pinnell, M.**, \*Brown, K., (2012). Engineering, Implementing and Assessing a Rich STEM Educational Experience, STEM Think Tank and Conference - Changing the Paradigm, Harpeth Hall School, Nashville, TN, July 18-20, 2012.
- \*Patterson, E., **Pinnell, M.**, Blust, R., \*Beach, R., (2012). Unintended Consequences of NSF-RET: Innovation and Engineering Design for STEM Teachers: Impact on Undergraduate Engineering Students, Dayton Engineering and Science Symposium, Wright State University, Oct. 29, 2012.
- **Pinnell, M.**, Blust, R., Franco, S., Preiss, S., \*Beach, R., (2011). Engineering Innovation and Design for STEM Teachers, NSF Engineering Education Awardees Conference, March 13-15, 2011, Reston, Va.
- \*Beach, R., Preiss, S., **Pinnell, M.**, Blust, R., Franco, S., (2011). Reflections from an NSF RET program - Engineering Innovation and Design for STEM Teachers, Dayton Engineering and Science Symposium, Wright State University, Ohio, October 24-25, 2011.
- **Pinnell, M.** (2011), Perspectives on Faith and Life Series, "Vocational Engineering," UD Campus Ministry, UD. (February 8, 2011).
- **Pinnell, M.**, Inside the Studio-Facilitator, November, 2011
- **Pinnell, M.F.**, Aaron, P., \*Vehar, M. (2008). Integrating an International Service-Learning Experience in Multiple Engineering Courses, accepted for presentation to 3<sup>rd</sup> Annual Conference on International Service-Learning, IUPUI, Feb 29 – March 1, 2008.
- \*Heyne, J., \*Schreier, C., **Pinnell, M.**, (2007). Use of Replaceable Steel Plates to Enhance the Efficiency of a Biomass Stove, ETHOS Conference, January 27, 2007, Northwest University, Wa.
- \*Hoffman, N., \*Schreier, C., Pinnell. M.. (2007). The Design and Development of a Low Cost Wood Moisture Sensor, ETHOS Conference, January 27, 2007, Northwest University, Wa.
- **Pinnell, M.F.** (2004), Achieving Diversity in Engineering by Helping Students to see the Human Side of Engineering, A Quest for Community: A Call for Action, Wright State University, April 16, 2004.
- **Pinnell, M.**, Bryden, M., \*Schmidt, C., Engineers in Technical Humanitarian Opportunities of Service-learning (2003), Sustainable Resources 2003, University of Colorado, Boulder, Colorado, September 29 – October 4, 2003.

### *Invited Lectures and Workshops*

- **Pinnell, M.**, Invited Participant -NSF Research Experiences for Teachers (RET) in Engineering and Computer Science Workshop, workshop to discuss best practices and future directions of the NSF Research Experiences for Teachers (RET) in Engineering and Computer Science program, April 28 - 29, 2014.
- **Pinnell, M.**, Invited Facilitator - Supporting Accomplished Teacher Performance, MCESC, facilitated an Innovation in Action session for 30 K-12 teachers, June 11-13, 2014,.
- **Pinnell, M.**, Invited Participant - Engineering Design Process Portfolio Scoring Workshop (EDPPSR), University of Maryland, College Park, MD. April, 2013.
- **Pinnell, M.**, Invited Panelist - Service-Learning in Engineering Technology and Computing, Facilitated by Dan Budny and William Oakes, Fourth Annual First Year Engineering Experience (FYEE) Conference - Enhancing the Success of First -Year Engineering Students, University of Pittsburgh, Pittsburgh, PA, August 9-10, 2012.
- **Pinnell, M.**, Invited Participant - Engineering Design Process Portfolio Scoring Workshop (EDPPSR), University of Maryland, College Park, MD. August 7-8, 2012.
- Invited Participant EFELTS (Engineering Faculty Engagement in Learning Through Service) Summit and Distillery, Boulder, Colorado. Sept 22-24, 2011,
- Attended NSF ENGAGE Strategy Implementation Workshop, Denver, Colorado (Invited as part of the Engage Mini-Grant UD applied for and received, May 31- June 2, 2011,.
- Invited Participant to the Global Education for Engineers, Sponsored by the National Science Foundation, Sept 5-6, 2008.
- Invited Panelist for the 2008 SAE World Congress Panel Discussion on CAE in Automotive Interior
- **Pinnell, M.F.**, Keynote speaker at ECOS conference, OSU, Columbus Ohio, Spring, 2007
- **Pinnell, M.F.** \*Eger, C.W., Educational Opportunities In Appropriate Technology For Undergraduate Engineering Students at The University of Dayton, Invited Lecture, Baylor University, May 2004.

## Research / Grants

*Exceeding \$2.8 M total funding including six NSF grants.*

- Crosson, K., **Pinnell, M.F. (Co-Principal)**, Research Experience for Undergraduates (REU) Collaborative Research: REU Site: STEM Research for Global Change. National Science Foundation. \$165,342, 09/2023 – 08/2026.
- **Pinnell, M.F. (Principal)**, Research Experience for Teachers (RET) Collaborative RET Site: Global STEM – Appropriate Technology for Developing Communities. National Science Foundation. \$331,650, 08/2019 – 07/2022.
- Heyne, J., **Pinnell, M.F. (Co-Principal)**, Integrated Cookstove-Heating-Electricity Generation for Small Homes – Integrated cooking, heating, and electric power generation, SBIR Phase II Consultants. \$11,200, 07/2018 – 06/2020.
- Ferguson, S., **Pinnell, M.F. (Co-Principal)**, Draeger M., Center for STREAM Education in the Dayton Area (CSEDA), Office of Mission and Rector, \$10,000, 05/2018 – 04/2019.
- **Pinnell, M.F. (Principal)**, Smith, T., Sableski, M., Driskell, S., University of Dayton Proposal R-23807: Using Engineering Design to Increase Literacy and STEM Interest among Third Graders, Engineering and Science Foundation of Dayton, \$87,469, 06/2017 – 06/2020.
- **Pinnell, M.F. (Principal)**, Smith, T., Sableski, M., Driskell, S., STEM Literacy Afterschool Program, Marianist Foundation, \$10,000, 04/2017 – 04/2018.
- **Pinnell, M.F. (Principal)**, University of Dayton, Petry, Central State University, Mian, Wright State University, Research Experiences for Teachers (RET) in Engineering and Computer Science (11-509): REU Supplement to Collaborative RET Site – Inspiring The Next Generation of a Highly-Skilled Workforce in Advanced Manufacturing and Materials, National Science Foundation, Federal, \$5,000 UD (\$15,000 Total), 03/2017 – 03/2018.
- **Pinnell, M.F. (Principal)**, University of Dayton, Petry, Central State University, Mian, Wright State University, Research Experiences for Teachers (RET) in Engineering and Computer Science (11-509): REU SUPPLEMENT TO COLLABORATIVE RET SITE – Inspiring the Next Generation of a Highly-Skilled Workforce in Advanced Manufacturing and Materials, National Science Foundation, Federal, \$10,000 (\$30,000 Total), 03/2016 – 03/2017.
- **Pinnell, M.F. (Principal)**, University of Dayton, Petry, Central State University, Mian, Wright State University, Research Experiences for Teachers (RET) in Engineering and Computer Science (11.509): COLLABORATIVE

- RET Site – Inspiring the Next Generation of a Highly-Skilled Workforce in Advanced Manufacturing and Materials, National Science Foundation, Federal, \$180,000 (\$504,000 Total), 06/2014 – 06/2017.
- **Pinnell, M.F.**, Bistrek, L., Hart, E., Engineering Outreach for Middle School Girls (Proposals No R-21251), Engineering Information Foundation, \$19,462, 05/2014 – 12/2015.
  - **Pinnell, M.F.**, Grant, Engineering Innovation and the Human Condition, CAP Crossing Boundaries, \$2500, 03/2013 – 04/2014.
  - **Pinnell, M.F. (Co-Principal)**, Krane, C.M. (Co-Principal), Diestelkamp, W.S. (Supporting), Proposal no. R 17080, Assessing the Intraluminal Ultrasonic Tissue Welder, Ethicon ® Endo-Surgery, \$217,303, 05/2011 – 05/2013.
  - **Pinnell, M.F.**, Ciric, Bigelow, and Bistrek, ENGAGE: Engaging Students in Engineering Mini-Grant, NSF-funded ENGAGE: Engaging Students in Engineering Program. \$10,000, 08/2011 – 01/2013.
  - **Pinnell, M.F. (Co-Principal)**, Krane, C.M. (Co-Principal), Diestelkamp, W.S. (Supporting), Allen, D.L. (Supporting), Contract, “R-18988: Tissue Welding Assessment,” Ethicon Endosurgery, \$53,889, 04/2011 – 12/2011).
  - Bigelow, K.E. (Principal), Diestelkamp, W.S., Krane, C.M., **Pinnell, M.F.**, Grant, “Multi-disciplinary STEM Grant Preparation Support in Bioengineering,” NSF Advance – LEADER Consortium Mini-Grant, Local, \$5,000, 12/2010 – 12/2011.
  - **Pinnell, M.F. (Principal)**, Krane, C.M., (Principal), Diestelkamp, W.S. (Principal), Grant, “Assessing the viscoelastic properties of porcine arteries: an integrated approach,” Leader Consortium – NSF Advance Program, Other, \$5,000, 12/2010 – 06/2012).
  - **Pinnell, M.F. (Principal)**, Blust, R.P. (Co-Principal), Grant, “EEC-1009607 – Engineering Innovation and Design for STEM Teachers,” National Science Foundation, Federal, \$499,101, 07/2010 – 12/2014.
  - Hallinan, K.P. (Principal), **Pinnell, M.F. (Co-Principal)**, Grant, “ETHOS Sustainable Engineering Scholars,” National Science Foundation, Federal, \$650,000, 02/2009 – 02/2013.
  - **Pinnell, M.F. (Principal)**, Krane, C.M. (Principal), Diestelkamp, W.S. (Other), “Assessing Effect of Device Geometry and Load,” Ethicon Endosurgery, \$91,656, 12/2009 – 06/2011.
  - **Pinnell, M.F.** (PI), Engineering in Urban Education: Robotics Outreach and Intersession Camp at Kiser PK-8 School, 2008-9 Great Cities Great Service Mini-Grant Proposal, submitted on behalf of Douglas Smith, \$11,825, June, 2008 - May 2009.
  - University of Dayton Graduate School Faculty Fellows Program, 25% summer funding for **Pinnell, M. F.** 10% summer funding for Krane and Wilkens, University of Dayton Research Council Seed Grant, Assessing the Structural and Mechanical Properties of Porcine Carotid and Renal Arteries, \$11,000, (May 15, 2008-August 15, 2008)
  - **Pinnell, M.F.**, (Principal), Krane, C. M. (Principal), Proposal no R 16380 Assessing the Causes of Variability in Seal Quality and Tissue Changes Resulting from the use of the Ethicon ® Harmonic R Surgical Systems, Phase 2: Evaluating the Contribution of Vessel Type, Infusion Fluid and Temperature on Seal Quality \$100,948, May, 2007 - May, 2008 Ethicon Endo-Surgery, extension granted \$15,000, (June, 2008 - August, 2008)
  - **Pinnell, M.F.** (PI), Engineering in Urban Education: Robotics Outreach and Intersession Camp at Kiser PK-8 School, 2008-9 Great Cities Great Service Mini-Grant Proposal, submitted on behalf of Douglas Smith, \$11,825, June, 2008 - May 2009.
  - **Pinnell, M.F.**, (Principal), Krane, C. M. (Principal), Proposal no. R-15679A, Assessing the Causes of Variability in Seal Quality and Tissue Changes Resulting from the Use of the Ethicon ® Harmonic R Surgical systems \$66,213, Ethicon Endo-Surgery, May 2006-May 2007
  - **Pinnell, M.F.** (PI), Blust, R. P (Co-PI), GSE/DIS #0533544 Making Connections: Resources for K-12 Service-learning and Experiential Learning in STEM Disciplines, National Science Foundation, Federal, \$200,000, May, 2006-Dec. 2008.
  - **Pinnell, M.F.**, (Principal), Proposal No R-13973, Assessment of Corrosion Sensors for Aging Aircraft, \$43,000, S&K Technologies, (March, 2003 - March 2004)
  - Miscellaneous industrial contracts and grants through UDRI (25% funded 2001-2005 during academic year and 50-75% funded during summer) These awards are not included in the total amount of research dollars listed above. Total funding from these awards ~\$100K.

## Graduate Student Advising

*Doctoral:*

- Chadwick Barklay, Investigation of Effects of Neutron Radiation Exposure on Tantalum Alloys for Radioisotope Power System Applications, PhD Materials Engineering, May, 2007

*Master's:*

- Brenna Nowaki, MS Mechanical Engineering, expected graduation May 2016.
- Solomon Dunning, MS Mechanical Engineering, expected graduation May 2016.
- Samuel Kuhr, A Microstructural Characterization of Aluminum 7075-T6 Treated with the Retrogression and Re-Aging Process, MS Materials Engineering, 2003

*Dissertation and Thesis Committee Service:*

- Daisy Aspiras, Ph.D, Student, Educational Leadership expected graduation May 24.
- Gerica Brown, PhD. Student, Educational Leadership, May 2022
- Dimitri Papazoglou, PhD. Student, Electrical and Computer Engineering, expected graduation May 2024.
- Chelsea Marcum, PhD. Student, Bioengineering, May 2018
- Senia Smoot, MEE, MS Mechanical Engineering, December 2013.
- Nisrin Rizek Abdelal, MEE, PhD candidate, May 2013.
- Daniel Petit, MEE, MS Mechanical Engineering, May 2012.
- Joshua Horn, MS Mechanical Engineering, May, 2010
- Norma Howell, PhD, Educational Leadership, School of Education and Applied Sciences, 2008-2010.
- Franco Rodriguez, PhD Mechanical and Aerospace Engineering, 2004

**Affiliation**

- American Society of Engineering Education (ASEE)
- Society of Women Engineers (SWE)
- Women in Engineering Pro-Active Network (WEPAN)
- Professional and Organizational Development Network in Higher Education (POD)