

**Institute Title:** Teaching Across the Curriculum Using Problem-Based Learning (PBL)

**Institute Description:** In a standardized system of education, it may seem difficult to engage students in meaningful learning. Problem-based learning (PBL) is one strategy that teachers can use to meet both the standards and the goals of an educator. All types of teachers can learn how to put PBL to use as an important teaching strategy. Institute participants spend a week immersed in hands-on activities learning how to solve real world problems using creativity and critical thinking.

**Course Number:** AENG 586

**Faculty:**

Co-Instructor:     **Scott A. Warner, Ed.D., IDSA**  
Professor, AEST Graduate Program Coordinator  
Millersville University of Pennsylvania



Scott A. Warner is a Professor in the Department of Applied Engineering, Safety & Technology at Millersville University. He has degrees from Millersville University, Ball State University, and West Virginia University. He has taught at the middle school, high school, and university levels. He is a member of several organizations that deal with education and design including the International Technology and Engineering Educators Association (ITEEA) and the Industrial Designers Society of America (IDSA). He authored or co-authored over 40 peer reviewed articles or book chapters and has given over 50 presentations to educators and design professionals at various conferences.

Co-Instructor:     **Molly S. Miller, Ed.D.**  
Technology & Engineering Educator, Penn Manor High School  
Adjunct Professor, Millersville University



Molly S. Miller is a technology and engineering teacher at Penn Manor High School in Millersville, Pennsylvania, where she teaches courses in engineering, applied physics, and computer science. She is also an adjunct professor in the Department of Applied Engineering, Safety & Technology at Millersville University. She has bachelor's and master's degrees from Millersville University as well as her doctorate from the University of Pittsburgh. Molly speaks nationally on technology and engineering teaching and learning. Molly is involved in a number of student organizations including state leadership of the Pennsylvania Technology Student Association (TSA).

## Guest Speakers:

Guest Speaker: **Karen Rubenstein**  
Head of School, Montessori Academy of Lancaster  
Lancaster, Pennsylvania

Date: Tuesday, July 11th

Theme: What Does Gold-Standard PBL Look Like?



Karen Rubenstein has been in the field of Education for over 40 years! She began her career as a Kindergarten Teacher in Prince George's County Maryland in the Public Schools. A move to Southern California allowed her to work in a Private Day School as a Developmental Kindergarten teacher. Since moving back to the East Coast in 1994, she has been a Director of an Early Childhood Center and for the past 20 years has been Head of School at the Montessori Academy of Lancaster.

Karen has a B.S. in Early Childhood Education and Graduate work in Child Development from the University of Maryland. She holds a Director's Certificate from Penn State University and is certified in Montessori School Management from the Center for Montessori Teacher Education in New Rochelle, N.Y.

Guest Speaker: **Dr. P. John Williams**  
Professor, Director of Graduate Research, Curtin University  
Perth, Australia

Date: Wednesday, July 12th

Theme: Designing a PBL Experience



P John Williams is a Professor of Education and the Director of Graduate Research in the School of Education at Curtin University. His current research interests include STEM, mentoring beginning teachers, PCK and electronic assessment of performance. He regularly presents at international and national conferences, consults on Technology Education in a number of countries, and is a longstanding member of eight professional associations. He is the series editor of the Springer Contemporary Issues in Technology Education and is on the editorial board of six professional journals. He has authored or contributed to over 250 publications, and is elected to the International Technology and Engineering Education Association's Academy of Fellows for prominence in the profession.

Guest Speaker: **Garreth Heidt**  
High School Teacher, Perkiomen Valley School District  
Collegeville, Pennsylvania

Date: Thursday, July 13th

Theme: Managing a PBL Experience



For 30 years, Garreth Heidt has designed classes at the middle, high school, and college level. He engages his students through a unique instructional approach employing design-and project-based learning.

Mr. Heidt's classes blend traditional and progressive methods to develop learner's skills in mindful observation, critical viewing, civil discussion, and problem solving.

In addition to his work in the classroom, Mr. Heidt spent 27 years coaching speech and debate and has helped start his district's Robotics and Esports Teams. He was the Director of Learning for the design firm "Form & Faculty" and blogs at [www.onlyconnects.wordpress.com](http://www.onlyconnects.wordpress.com).



Guest Speaker: **Dr. Erik Orndorff**  
Superintendent, Pequea Valley School District  
Kinzer, Pennsylvania

Date: Friday, July 14th

Theme: Leading a PBL Implementation Effort



Dr. Erik Orndorff is the Superintendent of Pequea Valley School District. His career in education began in 1993 as a Math and Language Arts teacher. He would eventually serve as Assistant Principal and Principal of Pequea Valley Intermediate School. In 2009 he became Director of Curriculum and was named Superintendent in 2012.

He earned his Doctorate in Education from Immaculata University as well as a Master's in Education from Shippensburg University. Erik is the author and co-author of several books including Early Start Career Series, a participatory career/character exploration guide for teachers and students. Erik is a national and regional presenter on leadership, individualized learning, careers, and character education