

AENG 586: Teaching Across the Curriculum Using PBL

Millersville University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and to comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires faculty members to report incidents of sexual violence shared by students to the University's Title IX Coordinator. The only exceptions to the faculty member's reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project.

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Course Description

1. *Course:* AENG 586
2. *Course Title:* Teaching Across the Curriculum Using PBL
3. *Prerequisites:* Graduate Student Standing
4. *Course Description:*
In an increasingly standardized system of public education it may seem difficult, if not impossible, to engage students in real and meaningful teaching and learning. Problem-based learning (PBL) is one strategy that teachers can use to meet both the Pennsylvania Core Standards and the goals of a constructivist educator. This institute will help all types of teachers learn how to put PBL to use as an important tool in their teaching toolbox. Institute participants will get to spend a week working with fellow teachers immersed in hands-on activities learning how to solve real world problems using their creative abilities and engage in critical thinking.

Course Rationale, Objectives, Content, and Use

5. *Course Rationale:*

Public education has a long history of oscillations from liberal to conservative philosophies of instruction. Each oscillation has brought with it “new and better” forms of instruction. Over the years many of these approaches to teaching and learning have come and gone. However, one approach to instruction that has been around, in one form or another, for hundreds of years is problem and project-based learning (PBL). In the opening decades of the 21st century many leaders in education have rediscovered how PBL is one technique that can be used to reach a greater range of students. For many of today’s students the didactic approach is not enough. Increasingly, they need to see meaning and value in what they are learning. The “just in case” philosophy of education that served public education well in the 20th century is being replaced by the “just in time” approach of PBL. Edutopia (2007, October 19) summarized why this approach to teaching and learning is so important by stating that PBL:

- Helps students develop skills for living in a knowledge-based, highly technological society
- And technology use bring a new relevance to the learning at hand
- Lends itself to authentic assessment
- Promotes lifelong learning
- Accommodates students with varying learning styles and differences
- Is supported by research
(<http://www.edutopia.org/project-based-learning-guide-importance>)

6. *Course Objectives:*

Upon successfully completing this course each student should be able to:

- A. Describe problem-based learning and its features as they are applied across the content and grade levels
- B. Defend why problem-based learning is a valuable tool for teaching
- C. Explain how educational standards can be achieved using problem-based learning strategies
- D. Demonstrate techniques to assess learning within the context of problem-based learning
- E. Create problem-based learning experiences that are appropriate for their content and grade level
- F. Describe how they would manage a problem-based learning classroom or larger school-based environment

7. *Course Content:*
 - A. Introduction to PBL
 - B. What Does Gold Standard PBL Look Like
 - 1) A challenging problem or question
 - 2) Sustained inquiry
 - 3) Authenticity
 - 4) Student voice and choice
 - 5) Reflection
 - 6) Critique and revision
 - 7) A public product
 - C. Designing a PBL Project
 - 1) What PBL is Not
 - a. “Dessert” projects
 - b. “Side dish” projects
 - c. “Buffet” projects
 - d. End-of-unit performance assessments or applied learning tasks
 - 2) Types of PBL Projects
 - a. Solving a real-world problem
 - b. Meeting a design challenge
 - c. Exploring an abstract question
 - d. Conducting an investigation
 - e. Taking a position on an issue
 - 3) PBL in Context
 - a. Which students will be involved?
 - b. How long will my project be?
 - c. How simple or complex will my project be?
 - d. How many subject areas will be included?
 - 4) Generating Project Ideas
 - a. Customizing someone else’s project
 - b. Generating your own idea
 - 5) Building the Framework for the Project
 - a. Setting learning goals
 - b. Selecting major products
 - c. Writing a driving question
 - D. Managing a PBL Project
 - 1) Creating a Project Calendar and Arranging Resources
 - 2) Phases of a Project
 - a. Launching the project
 - b. Building knowledge, understanding, and skills
 - c. Developing, critiquing, and revising products
 - d. Presenting products
 - E. Leading a PBL Implementation Effort
 - 1) Why PBL in Your School or District?
 - 2) Preparing for a Serious Effort
 - 3) Bringing Stakeholders Along

8. *Schedule for the semester: refer to the attached chart for the course agenda.*

9. *Required Texts and resources:*

- Larmer, J., Mergendoller, J. & Boss, S. (2015). *Setting the standards for project-based learning: A proven approach to rigorous classroom instruction*. Alexandria, VA: ASCD. ISBN 978-1416620334
- Boss, S., & Larmer, J. (2018). *Project based teaching: How to create rigorous and engaging learning experiences*. ASCD. ISBN 978-1416626732

10. *Recommended Resources and References / Sources of Knowledge Upon Which This Course is Based:*

- Carey, B. (2014). *How we learn: The surprising truth about when, where, and why it happens*. New York: Random House.
- Cooper, R., & Murphy, E. (2018). *Hacking project based learning 10 easy steps to PBL and inquiry in the classroom*. Times 10 Publications.
- Dweck, C. S. (2006). *Mindset: The new psychology of success*. New York: Random House.
- Juliani, A. J. (2018). *The PBL Playbook: A step-by-step guide to actually doing project-based learning*. Write Nerdy Publishing.
- McDowell, M. (2017). *Rigorous PBL by design: Three shifts for developing confident and competent learners*. Thousand Oaks, CA: Corwin. ISBN-13: 978-1506359021
- Postman, N. & Weingartner, C. (1969). *Teaching as a subversive activity: A no-holds-barred assault on outdated teaching methods- with dramatic and practical proposals on how education can be made relevant to today's world*. New York: Delacorte.
- Ripley, A. (2013). *The smartest kids in the world: And how they got that way*. New York: Simon and Schuster.
- Wagner, T. & Dintersmith, T. (2015), *Most likely to succeed: Preparing our kids for the innovation era*. New York: Scribner.
- Wolk, S. (1998). *A democratic Classroom*. Portsmouth, NH: Heinemann.

11. *Additional information:*

- Additional reading material that supplements the content of the class will be used throughout the institute. This material will be available through the Internet, handouts, or through the university library reserve system. Students will be notified of what materials to access and where it is available at least one week in advance of the institute.

Student Learning and Assessment

12. *Plan for Evaluating Student Achievement:*

A. Major Activities/Tasks and Deadlines:

The grade for this class is based on the total points accumulated for all assignments, quizzes, papers, worksheets and examinations. The grade for the class will be determined by the percentage of the total possible points based on the following scale:

B. Grading:	91-100%	A
	90%	A-
	89%	B+
	81-88%	B
	80%	B-
	79%	C+
	71-78%	C
	70%	C-
	69%	D+
	61-68%	D
	60%	D-
	0-59%	F

C. Certain activities for this class may be graded on a pass/fail basis. Students will be informed in advance toward which activities this evaluation procedure applies.

13. *Method of Course Evaluation:*

Students will have an opportunity to complete a university–approved course evaluation form late in the course. Comments and information from the forms will help in developing this course in the future.

14. *Special Student Needs:*

If you need course adaptations or accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please make an appointment with Dr. Warner as soon as possible. His office is on the second floor of Osburn Hall and the phone is (717) 871-7234.

15. *Late Assignment Policy:*

Assignments are to be proof-read and, when possible, reviewed by a peer. All assignments are due by the assigned deadlines. Materials are due by the assigned deadline even if the student is absent from a class.

16. *Attendance Policy:*

Please see the attachment that details the policies of the department and the university that will be observed for this class.

17. *Academic Dishonesty:*

Academic dishonesty includes but is not limited to plagiarism, fabrication of information, cheating and academic misconduct. Students should realize that the consequences for academic dishonesty might include removal from the university. For more information, please refer to the Millersville University Undergraduate Catalog or the brochure *Academic Honesty and Dishonesty at Millersville University*.

MILLERSVILLE UNIVERSITY ATTENDANCE POLICY*EFFECTIVE SPRING 2003**Approved by Faculty Senate 12/4/02; Administrative approval 1/10/03*

The University supports departmental and faculty class attendance policies that are reflective of and consistent with University approved guidelines. Faculty will include their class attendance policy in their syllabi given to all students in their classes at the start of the semester.

University approved guidelines:

- 1. Students are expected to attend all classes.** It is the student's responsibility to complete all course requirements even if a class is missed. If a student should miss class for an officially excused reason, then he/she is entitled to make up the missed work but only at the convenience of the faculty member. Responsibility for materials presented in, assignments made for, and tests/quizzes given in regularly scheduled classes lies solely with the student.
- 2. The University policy is that faculty will excuse absences for the following reasons:**
 - a. personal illness,
 - b. death or critical illness in the family,
 - c. participation in a university-sponsored activity,
 - d. jury duty,
 - e. military duties, or
 - f. religious holidays
- 3. Faculty judge the validity of student absences from class within the University's approved guidelines and may require documentation for excused absences.** Faculty will evaluate any reason, other than those listed above, for a student missing class and determine whether the absence is justified. In these circumstances, a student may make up missed work at the discretion of the instructor.
- 4. In the case of foreseeable absences, students are encouraged to notify the faculty member in advance.** A student who will miss class due to participation in an official University activity must notify the instructor well in advance of the activity to assure that the absence is excused.

Appeals:

As with any academic issue, students may exercise their right to appeal adverse attendance decisions. Please refer to the current undergraduate catalog for the complete Academic Appeal procedure.