Problem Based Learning (PBL): Overview

Problem Based Learning (PBL) is a collaborative process where students work with an open-ended scenario simulating a real-life work situation, developing essential employability skills such as communication, teamwork and problem solving.

PBL incorporates:

- Open-ended inquiry -considering multiple contributing factors and multiple potential solutions that may go beyond the initial definition of the problem
- A system-level approach to learning where students uncover a range of solutions (not just one solution) within a range of constraints (feasibility, practicality, time, etc.). Solutions usually lie outside the boundaries of a given problem

Student

Instructor

Goal

Impact

Student's Role
-Reflection questions and assignments, allowing students to articulate what they need to know and are learning throughout the process
-Students ask questions and do research in teams to determine the true nature and scope of the problem
-Students determine how to best organize and present information through their own research (such as seeing how others in industry organize and report information)

Instructor's Role
-Provide resources and on-line links, allowing students to do their own research to build on their existing knowledge
- Provide guidelines for collaborative team work and serve as a team coach where needed rather than lectures
- Instructors develop student learning outcomes and assessment strategies to monitor problem-solving progress throughout the team process
- Local industry is involved, both in the development and the assessment of the scenario

Impact
-Hands on work coupled with PBL supports students dealing with problems that they might encounter on the job
- Improved understanding of the value of finding out what the "real" problem is as opposed to wasting time on what the problem first appears to be
- Documenting the analytical steps to present to the class, practicing communication and negotiation skills
-Appreciating the value of asking questions before having answers

Goal
-Team based projects and tasks, providing students with practice in working, communicating and learning social skills with fellow "employees," while they address and solve problems by doing
- Role playing that allows students to experience the life of a worker in the target field
-In lieu of some assignments and exams, students are assigned tasks and product deliverables, which are based on industry standards