

Ensure Students Are Learning: Faculty Descriptions of Innovative Teaching Practices

Aligning Composition Assignments With STEM Pathways

Innovative Teaching Practice Description:

Working collaboratively with faculty from different disciplines, English department faculty develop contextualized composition assignments to align with other pathways (e.g., STEM, social sciences, allied health, criminal justice, business). The idea is to make the writing course germane to student interests and to expose students to the language, culture, and communication style they will use in their discipline. Instead of recycling the same old assignments (like a conventional research paper), the faculty contextualize the learning experience, engage students in applied learning opportunities, and use other high-impact practices to better prepare students for the real world. The assignment described hereafter originated for use in a STEM-contextualized technical writing course, and students worked individually, not in groups.

For this semester-long project, students assume the role of an innovator and entrepreneur to solve a problem. Drawing on the content in their STEM course, students identify and target a specific problem, issue, or process that is scientific or technical in nature. Students can choose to either invent a new product or identify and fix an existing issue. For example, a student may choose to address something like reusable water bottle sanitation.

Students conduct research on their chosen topic and prepare a technical manual detailing the product or process they propose. An exercise in sequential

writing, the manual should be at least 20 pages and must include background history of the product or process, its purpose, and step-by-step instructions for its intended use. Students are permitted to use other guides and technical manuals to assist in constructing their own.

In addition to the technical manual, each student prepares a 10- to 15-slide presentation, lasting approximately 20 minutes, to share their solution with the class. The presentation must explain the problem in technical detail, define the consumer market for the proposed solution, estimate the cost, provide a detailed description of the solution, project the future success of the product or process, include at least three tables or charts that help with explanations, and use diagrams that help visually illustrate the product or process.

Both the manual and the presentation are due during the last week of class and graded separately.

Notes From the Instructor About This Innovative Teaching Practice:

This collaborative approach to developing composition assignments started as a faculty-led initiative with support from the administration.