

Teacher Innovation Project Topical Outline

Project Submission Outline

Each team member is required to apply for credit. This is a 3-credit course lasting from August to December 2024. All projects will meet or exceed **45 credit hours**.

Each person on the project team will be required to submit a form. The same project form can be submitted for teams or collaborating districts. Each project needs to answer the following:

Project Submission Template	Details
Project Name	<i>Name of the project</i>
School District	<i>Name of the school district</i>
Collaborators	<i>Names of collaborators, including any from other districts</i>
Subject Matter	<i>Main subject(s) the project will cover</i>
Grade Level	<i>Intended grade level(s) for the project</i>
Number of Credits Seeking	<i>3 professional development credits</i>
Title	<i>Formal title of the project</i>
Objectives	<i>Specific objectives the project aims to achieve</i>
Intended Outcomes	<i>Expected learning outcomes for students</i>
Resources Needed	<i>List of all resources required for the project</i>
Resources Approved	<i>List of resources already approved for use</i>
Source of Funding	<i>Identify the source of funding for the project, if applicable</i>
Overview of Project	<i>Brief overview describing the project</i>
Detailed Outline of Project	<i>A comprehensive outline detailing steps, phases, activities, and timelines. Each section of the detailed plan must account for approx. hours. Those hours must be a minimum of 45 hours.</i>
Preferred Contact Times	<i>Times when the project team is available for meetings or consultations</i>
Measures of Learning	<i>Detail both formative (ongoing) and summative (end-of-project) assessment methods</i>
Intentions of Publishing or Presenting	<i>State yes or no, and provide details if planning to publish findings or present in academic settings</i>
Additional Information	<i>Any other relevant information or requirements for the project</i>

Instructor Role:

The instructor will act as a thought partner and collaborator, offering expertise in educational innovation. They will:

- Provide guidance during the proposal stage to ensure projects are feasible and aligned with educational standards.
- Offer support and expertise through regular check-ins via Google Meet, discussing project setup, progress, and any hurdles encountered.

- Facilitate the sharing of experiences and lessons learned among participants, enriching the course with a collaborative learning environment.

Example Projects:

District Level:

Example 1: Cross-Age Teaching Program

Objective: Mitigate the impact of teacher shortages by fostering a culture of peer teaching and learning.

Description: Create a program where older students serve as mentors or tutors to younger students in subjects, they excel in. This approach not only provides additional academic support to learners but also develops leadership and teaching skills among older students. Implementing such a program could alleviate some of the instructional pressures on teachers and enhance the learning community's cohesion.

Example 2: Virtual Reality (VR) Immersive Learning Experiences

Objective: Enhance student experience and reduce district financial burdens by incorporating cutting-edge technology into the curriculum to offer immersive and interactive learning experiences.

Description: Utilize VR technology to create immersive educational experiences across various subjects—history students could virtually visit historical sites, while science students could conduct experiments in a virtual lab. Such innovative uses of technology can make learning more engaging and attractive to students, potentially drawing more enrollees.

Example 3: Flexible Learning Paths

Objective: Address teacher shortages and declining enrollment by offering personalized and flexible learning paths for students.

Description: Develop a curriculum framework that allows students to choose from various learning paths based on their interests, career goals, and learning preferences. This could involve a mix of in-person, online, and hybrid classes, as well as internships and independent projects. Personalizing education in this way can help to attract a wider array of students and make better use of limited teaching resources.

Example 4: Teacher Sharing Network

Objective: Many rural school districts are experiencing decreasing enrollment. Other schools are unable to fill teaching positions. This project aims to establish a network for sharing teaching resources and expertise across schools using advanced digital technologies.

Description: Advanced digital technologies have been explored to see how new technologies can be used to support excellence teaching and learning in rural school districts. This project seeks to partner with at least one area rural school district to create self-paced online learning for middle school students while bringing districts together for a cross curricular, hands on project week where students work collaboratively. Learning will be measured in two-week iterations and at the end of each two-week cycle, a hands-on learning week/days will be facilitated for all students (in one central location.) By pooling resources and expertise, schools can improve the quality of education and mitigate the impacts of teacher shortages.

Classroom/grade level project examples:

Here are three classroom-level project examples that individual teachers or curriculum/grade level teams could create, showcasing innovation in teaching:

Example 1- Cross-Curricular Environmental Science Project

- Description: In response to the growing importance of environmental education, a team of science and social studies teachers collaborate on a semester-long project. Students engage in a comprehensive study of local environmental issues, combining scientific research with social impact analysis. The project includes field research, interviews with local stakeholders, and the use of digital tools to analyze data.
- Objective: To enhance students' understanding of environmental science through a real-world problem-solving lens, fostering interdisciplinary skills and community engagement.
- Innovation: Integrates technology for data collection and analysis, promotes community involvement through stakeholder engagement, and culminates in a student-led initiative to address local environmental concerns.

Example 2- Virtual Reality (VR) Historical Exploration

- Description: A history teacher incorporates VR technology to create immersive historical experiences. Students explore significant historical events, sites, and cultures using VR headsets, followed by project-based assignments where they create their own VR historical tours based on research projects about lesser-known historical events or figures.
- Objective: To deepen historical empathy and understanding by immersing students in the historical context, while also developing technical skills in creating VR content.
- Innovation: Uses VR to transform traditional history lessons into interactive, immersive experiences, encouraging deeper engagement with historical content and technical skill development.

Example 3 - Mathematics Through Coding and Robotics

- Description: Math teachers team up with the computer science department to integrate coding and robotics into the math curriculum. Through this project, students apply mathematical concepts to program robots for specific tasks, such as navigating mazes or solving real-world problems (e.g., calculating optimal paths, angles for movement).
- Objective: To apply mathematical theories in practical, hands-on ways, thereby enhancing problem-solving skills and fostering an interest in STEM fields.
- Innovation: Merges mathematics with coding and robotics, offering students a tangible application of abstract mathematical concepts and fostering interdisciplinary learning.

Each of these projects can be tailored to meet curriculum standards, while also addressing broader educational goals like increasing student engagement, integrating technology, and promoting interdisciplinary learning. These examples provide a foundation for teachers to innovate within their classrooms or grade levels, contributing to a more dynamic, engaging, and relevant learning experience for students.