Program Overview

Objectives:

• Supporting teachers to build 4-5 PBL units with yearlong implementation plans,
• Help teachers gain advanced perspectives on integrated math and Science content with their PBL units,
• Support teachers become reflective practitioners with PBL using video study of exemplary PBL and IBL practices.
• Support teachers align their integrated PBL projects and IBL lessons with NGSS and CCSSM.
• Teachers develop knowledge and skills for relevant mathematical modeling and scientific computing technologies for Integrated STEM Learning with their PBL units,
• Continue to develop technology integration capacity with a selected cohort of Secondary STEM Teachers in coding and computing training for STEM
  o Support teachers to apply their coding and computing skills to increase Technological Pedagogical content knowledge of teachers implementing PBL units.
• Collaborative Action research to support Culturally responsive practices with PBL for secondary STEM, Leadership training for STEM Teachers (support for mentoring in VI schools)

WEEK 1: June 20 – July 23:

9AM-12PM Morning session:
Focusing on teacher practices with IBL and PBL.
  o Reflections on the exemplary lessons and building Culturally Responsive Practices (CRP).
  o Lesson Study and reflections on best practices P2A and CRP using video
  o Best practices from teacher perspective NGSS and CCSSM implications
  o Understanding by Design (UbD) in teacher developing curriculum materials
  o Collaborative Action Research

12PM-1PM Lunch
1PM-4PM Afternoon session:
Intro to PBL, IBL with Mentor teachers as co-facilitators
  -experiencing PBL as students
  Experience lessons as students from leading project themes.
  From IBL lessons design and PBL unit design
  Develop and study PBL units as integrated series of cross-curricular IBL lessons under a project theme, vertical and horizontal cross curricular connections based on the theme

4PM-4:30PM Participant Reflections

June 20 – July 24: (1PM-4:30PM) Tech-in-STEM training on coding and computing for secondary STEM teachers (Afternoons)

Local instructional technology support training for selected middle and high school teachers. Participants will receive training to become instructional resource teachers on integrating coding, technology, and problem solving into math and science education. Trained teachers will participate in the yearlong follow-up activities with online
components. The emphasis will be on integrating coding and programming in secondary STEM education. For further information contact alewit@uvi.edu. The interested applicants should complete a set of prerequisite screening tasks that will be made available online.

**WEEK 2 (JUNE 27-JUNE30)**

9AM-12PM Morning session
- Modeling to integrate and apply Science, Engineering and Math principles: Advanced STEM Perspectives on the project themes
- Developing collaborative action research plans around the project themes
- Examining best practices from teacher perspective NGSS and CCSSM implications

12PM-1PM Lunch

1PM-4PM Afternoon session – modeling and technology with PBL unit design, yearlong implementation plans
- (Week 2 in STX, Week 1 in STT) Technology integration mini sessions for project based learning and implementations 7-12th grade classrooms
- Afternoon session – PBL lesson design, yearlong implementation plans

4PM-4:30PM Participant Reflections

**Fridays** – June 24th and JULY 1st Leadership Summit for STEM Educators/Mentor Teacher Training

9AM-12PM Morning session – Project groups present for the administrators
- Implementing interdisciplinary PBL units in schools. Support structures and teacher collaborations in and outside classrooms. Opportunities to develop leadership in STEM Education and teacher support. Mentoring for induction of new and inexperienced teachers.
- Expert support in implementing ideas.

Administrators
- present their school improvement process SIP; and their schools’ priorities and their implications to STEM teacher practices, -how to facilitate teacher collaborations, teacher research in and outside of their classrooms, and -how to support this process as a part of teacher evaluation process. -How to be leaders in the school? How to get resources for conferences, etc.? -Coordinating efforts and resources with teachers and technical support personnel. -Developing a vision of model classroom and model classroom teachers in STEM for their school. Joint efforts to work on?

Locally effective leadership strategies for STEM Education. Integrating eSIP, action research, PBL and teacher assessments and evaluations
- Developing a vision of model classroom and model classroom teachers in STEM for their school.

12PM-1PM Lunch

1PM-4PM Afternoon session –
- field trip with researchers collecting data
- Teacher presentations/feedback

4PM-4:30PM Participant Reflections

For further questions and details please send an email to celil.ekici@uvi.edu.

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