Vibes and Waves in Action
Workshop on Blended Learning with Computing

University of Massachusetts Lowell
July 27-29, 2015

Vibes and Waves in Action, an NSF GK-12 project at UMASS Lowell presents a novel teacher workshop on implementing Blended Learning, Flipped Classrooms and Computational Thinking in their teaching environment.

WHO SHOULD ATTEND:

High school teachers involved in SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS, and COMPUTING classes.

WHY:

There is emerging evidence that students who participate in some form of online learning perform better on average than those in face-to-face classrooms alone and that a combination of the two approaches can potentially have a larger advantage than either system individually. A flipped classroom is one where students study the material posted online by teachers, participate in discussion forums and when in the classroom, solve problems and design projects while interacting with the teacher and their classmates. Building computational thinking skills is critical for all disciplines, giving students the experience to participate in high technology education and careers while improving their logic and problem solving ability. Supplemental online material when created in the right way, offers students the flexibility and individualization suited to their learning style and environment. For teachers, this combination of pedagogical skills can help manage their classroom more efficiently, allowing them to address specific needs of each student while gaining state-of-the-art skills in creating material on popular virtual learning platforms.

WHAT WILL YOU LEARN:

In this 3-day workshop, teachers will:

- Learn to create lesson plans, learning and testing material, quizzes, and discussions on a platform such as edX, one of the current platforms for creating massive open online courses.
- Understand how to find and use a range of existing resources for blended learning activities and online materials to create the optimal learning experience for students.
- Gain an overview and see examples of lessons on e-learning platforms for topics in physics, mathematics, probability and statistics etc., that integrate course concepts and computational models using programming tools such as MATLAB.

Participants will receive professional development points and a stipend on completing the workshop. For more information and to receive a complete application to participate in the workshop, please contact Dr. Kavitha Chandra at kavitha_chandra@uml.edu or (978) 934 3356