PSI-PMI Costs Cut in Half

NJEA, Bayer and SMART Fund New Jersey Roll Out

NJEA, Bayer and SMART partner to support CTL, an international nonprofit leader in advancing the integration of professional development, curriculum, pedagogy, technology, and assessment, to improve STEM outcomes.

NJEA and Bayer Subsidize NJ Tuition Costs

The New Jersey Education Association (NJEA) and Bayer US Foundation have donated funds to expand and replicate the successful STEM education programs of the New Jersey Center for Teaching and Learning® (CTL) throughout New Jersey. NJEA and Bayer funds support CTL coursework for New Jersy by subsidizing half of the tuition for each participating teacher.

SMART Technologies Subsidizes Classroom Technology Costs

Support from SMART Technologies makes necessary classroom equipment available to teachers implementing the Progressive Science Initiative® (PSI®) and/or Progressive Mathematics Initiative® (PMI®) at deeply reduced prices.

With SMART's support a PSI-PMI teacher's classroom can be equipped with an interactive projector and 24 responders for as little as $2600, less than half the retail cost of an interactive whiteboard and responders. Contact CTL at info@njctl.org for specific pricing information.

Free, Open-Source Content Eliminates Risky Textbook Investments

With the adoption of Common Core State Standards, Next Generation Science Standards, and new College Board Advanced Placement examinations in Physics, Chemistry, and Biology, almost all math and science textbooks in the United States will need to be replaced. Since there is still uncertainty about the final form of the assessments to be matched to these new standards, investing in textbooks is both risky and expensive. This is the time to move to technology-enabled, open educational resources (OER) which are continuously being improved, and away from costly textbooks.

Coherent K-12 Math and Science Instructional Sequence

Only PSI and PMI offer completely coherent math and science curricula for grades K-12. Additionally, PSI-PMI courseware provide context and links to other open educational resources (OER), such as Khan Academy's library of videos; the University of Colorado's PhET interactive science simulations; and National Library of Virtual Manipulatives, opening the door to rich,

coherent learning experiences. PSI-PMI also allows teachers to create their own links to exciting Common Core and Next Generation Science OER instructional materials with ease.

The PSI-PMI Approach

PSI-PMI uses technology to enable teams of teachers to create, share, and improve courses via completely consistent, integrated approaches to teacher training and classroom instruction. These courses are designed to be delivered to learners by way of an interactive projectors and student responders. Materials can also be used on personal electronic devices, or printed for off-campus use. Courseware includes instructional presentations, homework, labs, and assessments. These combined elements remove the stress and complexity of preparing lesson plans in isolation and makes learning more fun.

The pedagogical methods interweave direct instruction and social constructivism guided by the use of frequent, real-time formative assessment. All PSI-PMI curriculum materials are open-source and available at www.njctl.org. These materials are free to any student, teacher, school or district, with the exception of assessments. Assessments are not available to students.

PMI is a fully articulated, complete, Common Core compliant K-12 instructional sequence of courses. PSI provides high school science courses aligned to College Board Advanced Placement science standards, with both AP and pre-AP courses, and will be piloting K-8 science courses aligned to Next Generation Science Standards in the fall of 2013.

Courses Eligible for this Program

CTL Teaching Methods - A three-day course for teachers about the methods used in PSI-PMI classrooms. Topics include accessing PSI-PMI courseware, working with interactive projectors and responders, using integrated formative assessment in daily instruction, and implementing CTL pedagogy and assessment strategies.

PSI Algebra-Based Physics for Teachers - A five-week course (3 days/week) where teachers will learn both the content of physics and how to teach PSI Algebra-Based Physics. Teachers will be taught with exactly the same materials they will use in their own classrooms, creating depth of understanding.

See below for additional details regarding both of these courses.

Note: The PSI Algebra-Based Physics for Teachers course is the first in the sequence of courses that comprise CTL's Physics Endorsement and Chemistry Endorsement programs by which New Jersey teachers in any subject area can earn an endorsement to teach physics or chemistry. Contact info@njctl.org for more information.

Course Schedule and Cost

Current course schedules and locations can be viewed at https://njctl.org/professional-development/schedule/

Course	Individual or Group	Original Price	Reduced Price
CTL Teaching Methods	Individual	$540	**$270**
	Group (up to 15)	$5,400	**$2,700**
PSI Algebra-Based Physics for Teachers	Individual	$1,800	**$900**
	Group (up to 15)	$18,000	**$9,000**

Individual Inquiries and Enrollment

Individual teachers can register online: https://njctl.org/professional-development/register-for-courses/

To learn more about enrollment, additional professional development, graduate credit or continuing education considerations, email courses@njctl.org.

District Inquiries

CTL works hard to customize its training programs to meet specific professional development schedules and needs. Email CTL at courses@njctl.org to learn how easy it is to bring trainers to your area, or to work with CTL to shape custom training options.

CTL Teaching Methods Course

CTL Teaching Methods Course Description

This course prepares teachers to implement PSI-PMI in their classrooms.

Teachers will learn CTL's approaches towards curriculum, pedagogy, technology, formative and summative assessment, grading, and pacing. They will explore how those are interwoven to create a highly effective teaching and learning environment. Sample units from different courses, and the elements that comprise them, will be downloaded and reviewed so that teachers feel comfortable with applying general principles to the specific cases. Teachers will practice using those methods during the course so that they have experience with teaching them, rather than just learning about them. Some specific topics include:

- Working with interactive projectors and student response systems
- Setting up and maintaining student response systems
- Using formative assessment as an integrated part of daily instruction
- Implementing CTL assessment strategies
- Downloading and using curriculum materials from the CTL website

Who is this Course For?

CTL Teaching Methods is designed for educators who:

- Are teachers about to implement PSI or PMI in their classrooms
- Are supervisors, lead teachers, curriculum specialists, or department chairs in schools implementing PSI or PMI
- Are curious about how technology can be used to make teaching less stressful and more successful, regardless of field
- Are already PSI or PMI teachers wishing to improve or update their own skills

How is CTL Teaching Methods Offered?

CTL Teaching Methods is a three-day course, and is offered in two ways. First, CTL offers some courses directly, in a variety of locations. Teachers may enroll in these courses as individuals. Second, CTL offers CTL Teaching Methods through interested districts; in these cases, the district may choose to identify eligible participants.

PSI Algebra-Based Physics for Teachers

Learn to Teach Physics by September

Learn to Teach Physics

PSI Algebra Based Physics drives major gains in student achievement in math and science. It provides the foundation for chemistry and, together with chemistry, the foundation for biology. Additionally, it provides an essential, mutually reinforcing learning experience for students studying Algebra I. It represents the keystone in achieving the goal of Physics for All, a requirement of social justice for students and international competitiveness for our country. Learn more at www.njctl.org.

Who is this Course For?

PSI Algebra-Based Physics for Teachers is designed for teachers:

- Who will be teaching physics in their classrooms for the first time
- Who teach physics and want to improve their students' results and interest in the subject
- Who teach science and mathematics and want to improve their own understanding of physics as a foundation to those disciplines

Choose a Schedule and a Method that Works for You

CTL's blended learning course structure combines face-to-face instruction with virtual learning, creating flexibility for those enrolled. All teachers will attend class 15 hours per week for five weeks. In class, teachers will study via the same methods, content, and technology they will later use in their own classrooms. By learning as they will teach, teachers become confident and competent masters of algebra-based physics instruction.

In addition, each teacher may choose to participate in any or all of these options:

- Attending up to 30 hours of face-to-face Instructional Meetings convened as 3.5- hour sessions immediately before or after the first and last class each week;
- Utilizing up to 40 hours of supplemental virtual learning materials including video presentations, problems, and solutions; and/or
- Participating in video conferencing with fellow teachers and instructors up to five nights per week, to work together on common problems or to seek help.

These options are provided so that each teacher can use the instructional resources best suited to their situation and learning style. Regardless of their learning path, grades are based on regular, weekly testing offered during the required attendance period. Teachers wishing to improve their scores have the option of retesting as many times as they wish during Instructional Meetings.

To see what course graduates have to say about their teaching and learning experience, go to njctl.org/physicsteachers.

Schedules and Locations

The course is offered on three continuous days per week, with half days of instruction on days one and three and a full day of instruction on day two. This schedule makes half days before and after class available for optional Instructional Meetings and reduces the number of days travelling teachers must be away from home.

Optional on-line videos are available 24-7. Video conferencing with an instructor and fellow teachers is available five nights per week during the course.