



NEW JERSEY CENTER
FOR TEACHING & LEARNING

ONLINE COURSES & PROGRAMS





NEW JERSEY CENTER FOR TEACHING & LEARNING

The New Jersey Center for Teaching and Learning (CTL) now offers online courses for teachers to learn our Teaching Methods as well as the content, and how to teach the content, of Physics.

These courses can be: taken on their own, used for the CTL Physics Endorsement Program in NJ, earn graduate credits or earn a Master's Degree.

These courses are brought to you by the #1 producer of physics teachers in the United States.

Learn to use **free, editable** materials to improve student outcomes.



Learn online:
anytime,
anywhere



Reduce stress
for you and
your students.



Earn grad
credits and a
path to a
Masters.



Reduce
district costs
by eliminat-
ing textbooks.

contact us: info@njctl.org

www.njctl.org

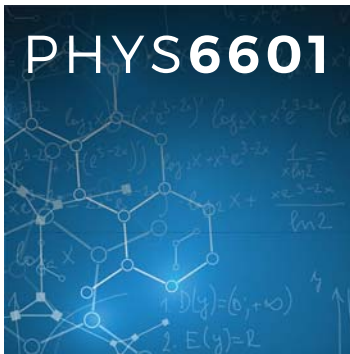
ONLINE COURSES



PSI-PMI TEACHING METHODS

Teachers will learn to instruct students using research-proven methods. Specific topics include curriculum, pedagogy, technology, formative and summative assessment, grading, and pacing and how those are woven together to create a highly effective teaching and learning environment.

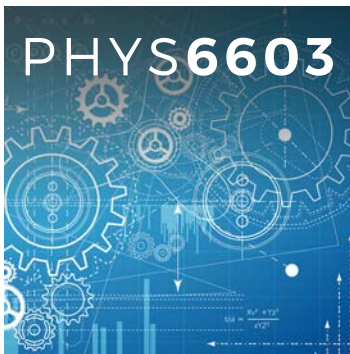
CTL Credits: 2



LEARNING AND TEACHING PSI ALGEBRA-BASED PHYSICS

In this introductory course, teachers will learn the content of PSI Algebra-Based Physics and how to teach it. This is a mathematically rigorous physics course that reinforces student knowledge of algebra while providing the foundation for studying advanced physics, chemistry and biology. Topics include mechanics, electricity and magnetism, waves and modern physics.

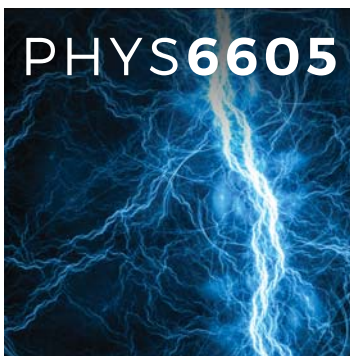
CTL Credits: 6



AP PHYSICS 1: MECHANICS

Teachers will learn topics from Advanced Placement Physics 1 and how to teach them, while developing a greater understanding to support their teaching of PSI Algebra-Based Physics. Topics include vector analysis, kinematics in two dimensions, dynamics in two dimensions, Newtonian gravitation, rotational motion, conservation of energy and momentum, and waves.

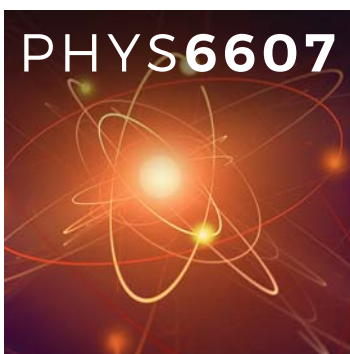
CTL Credits: 5



AP PHYSICS 2: ELECTRICITY, MAGNETISM AND OPTICS

Teachers will learn topics from Advanced Placement Physics 2 and how to teach them, while developing a greater understanding to support their teaching of PSI Algebra-Based Physics. Topics include 2D electric force, field, and potential; capacitors; magnetism and electromagnetic induction; and geometric optics.

CTL Credits: 6



AP PHYSICS 2: MODERN PHYSICS AND PRAXIS REVIEW

Teachers will learn further topics from Advanced Placement Physics 2 and how to teach them, while developing a greater understanding to support their teaching of PSI Algebra-Based Physics. They will also review all the content of the Praxis Physics Content Test. Topics include fluids, thermodynamics and modern physics and Physics Praxis Review.

CTL Credits: 5

Can I get graduate credits?



CTL has an articulation agreement with Colorado State University-Global Campus (CSU-G) which transfers CTL credits to them. CSU-G is a 100% online public university, offering innovative higher learning opportunities for nontraditional students and working adults.

To learn more visit CSUGlobal.edu

COURSE CREDIT ARTICULATION

CTL		CSU-GLOBAL	
Course	Credits	Course	Credits
MET6101	2	OTL593 Special topics: PHYS6101	2
PHYS6601	6	OTL593 Special topics: PHYS6601	4
PHYS6603	5	OTL593 Special topics: PHYS6603	4
PHYS6605	6	OTL593 Special topics: PHYS6605	4
PHYS6607	5	OTL593 Special topics: PHYS6607	4
Total	24	Total	18

Can these credits be used towards a Master's Degree?

The above 18 CSU-G credits may be applied towards the 36-credit CSU-G Master of Science in Teaching and Learning (MSTL) degree as follows:

The 12-credit subject area specialization requirement in physics is fulfilled by a combination of 12 of the above 18 CSU-G credits. In addition, six credits of the MSTL education credits requirement are fulfilled by:

- PHYS 6601 + PHYS 6603 fulfill the requirement for OTL540K (3 credits)
- PHYS 6605 + PHYS 6607 fulfill the requirement for OTL541K (3 credits)

COST

Description	Credits	NJEA MEMBERS		NON-NJEA MEMBERS	
		Per Credit	Total	Per Credit	Total
CTL online courses	24	\$220	\$5,280	\$275	\$6,600
CSU-G Credits for CTL courses	18	\$85	\$1,530	\$85	\$1,530
CSU-G Courses	18	\$450	\$8,100	\$450	\$8,100
Total for MSTL Degree			\$14,910		\$16,230

For more information, please visit: <https://njctl.org/teacher-education/grad-credits/>



NEW JERSEY PHYSICS ENDORSEMENT

This program provides currently certified New Jersey teachers, in any subject area, an endorsement to teach physics through a combination of CTL Online Courses for Teachers; Field Experience Courses; and Praxis examinations. CTL Online Courses for Teachers provide all the required instruction in both physics content and teaching methods.

Teachers complete the first two online courses for teachers, Algebra-Based Physics (PHYS 6601) and Teaching Methods (MET 6101), before entering the classroom in the fall.

Teachers then take two, 3-credit, Field Experience Courses, PHYS 6602 in the fall and PHYS 6604 in the spring, in which they teach Algebra-Based Physics to at least one section of students while receiving coaching and support from CTL.

During the Field Experience, teachers take three additional Online Courses for Teachers in the content, and how to teach the content, of Advanced Placement Physics. These are taken in the succession and should be completed before taking the Praxis examinations: PHYS 6603; PHYS 6605; and PHYS 6607.

Upon successfully completing these five Online Courses for Teachers and the two Field Experiences Courses, and passing the **General Science Praxis** and **Physics Praxis**, candidates can apply to New Jersey for an endorsement to teach physics.

COST

		NJEA MEMBERS		NON-NJEA MEMBERS	
Description	Credits	Per Credit	Total	Per Credit	Total
CTL online courses	24	\$220	\$5,280	\$275	\$6,600
CTL Field Experience	6	\$275	\$1,650	\$275	\$1,650
Total			\$6,930		\$8,250

*Optional 18 CSU-G Credits for \$85 per credit - total \$1,530



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