

Please forward to teachers! November 2020



Attention teachers of physics, chemistry, physical science, & math!

For summer 2021, ASU offers LIVE REMOTE &
IN-PERSON courses for professional development.

These are ideal courses to meet re-certification requirements, qualify to teach Dual Enrollment/Adjunct two-year college (TYC), and become highly qualified in physics or chemistry. They can count towards the ASU interdisciplinary *Master of Natural Science* degree (MNS) in physics, & graduate degrees in education. TYC, CTE, and pre-service teachers find these courses useful, too. 3-dimensional learning! Top priority to tuition-paying participants; 2nd priority for Arizona teachers who take for Continuing Ed.

* Apply after January 2021 for a partial tuition scholarship. We have funds for AZ teachers!

<http://physics.asu.edu/content/partial-tuition-scholarship-mnsmodeling-instruction-courses>

* or reserve a seat after Jan. for non-credit (\$400; need not apply to ASU. \$200 if out-of-pocket AZ)

<http://physics.asu.edu/content/modeling-instruction-application-reserve-seat-ceu>

Modeling Instruction is designated as an *Exemplary K-12 science program & Promising Technology program* by the U.S. Department of Education. It is rated an *Accomplished STEM program* by Change the Equation. It won the "Excellence in Physics Education" award of the American Physical Society.

LIVE ONLINE courses in Modeling Instruction (3 credits each)

June 7 to July 13 (Tuesday): (Zoom meetings MTWThF 8:30 to 11 am, AZ time)

PHS 530/PHY 480: Methods of Teaching Physics I: mechanics. Prerequisite: 2 semesters coll. physics

CHM 594/CHM 480: Modeling Instruction in Chemistry I / Methods of Teaching Chemistry I

(Mitch Sweet, instructor; Justin Sheets, peer co-leader. Prereq: 2 semesters college chemistry)

June 7 to 25: (Zoom meetings MTWTh 8:30 am to 12:30 AZ time)

CHM 594: Modeling Instruction in Chemistry II (Larry Dukerich, instructor. Prerequisite: Chem I)

IN-PERSON courses: June 7 to 25 (3 credits each)

PHS 530/PHY 480: Methods of Teaching Physics I: mechanics (Jeff Steinert). M-Th 8-3:30, F 8-noon

PHS 598: Physics of Music & Musical Instruments (Culbertson. Prereq: PHS530) M-Th 8:30-12:15

Other courses: June 28 to July 29 (3 credits each)

PHS 570: Spacetime Physics (in-person; or asynchronous & Zoom. 1-3:30pm MTWTh. Carl Covatto)

PHS 581/CHM 581: Structure of Matter (choose in-person or Zoom. 4-6:30pm MTWTh. Culbertson)

PHS 598: Leadership Workshop (4 Fridays at 1:10. June 11 & 18, July 16 & 23. Jim Archambault. 1 cr)

Visit <http://physics.asu.edu>, hover on "Admission", scroll down to MNS Admission or Modeling Instruction Program. For information, visit <http://modeling.asu.edu> and click on *ASU Summer Graduate Program for Teachers of Physical Sciences*. For help with tuition scholarships or Continuing Ed, e-mail Jane.Jackson@asu.edu, 480-314-1522. If you want grad credit, apply to ASU as a nondegree summer 2021 grad student (\$70 appl fee), at <http://admission.asu.edu/graduate/nondegree> -- no transcripts needed. Register for your course at least 1 week before course begins to avoid \$50 late fee.



ARIZONA STATE UNIVERSITY