

Please post in your department!



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

For summer 2023, ASU offers research-informed courses for your professional development. 3-D learning!

These are ideal courses to meet re-certification requirements, qualify to teach dual enrollment/adjunct two-year college (TYC), or become highly qualified (ESSA) in physics or chemistry. They can count toward 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. (Jan. 18, 2023)

* After Jan. 2023, reserve a seat for non-credit (CEUs) at <http://physics.asu.edu/node/2349>. \$100 if you must pay out-of-pocket. \$650 if your school pays (or other source). You needn't apply to ASU. Free course materials for AZ teachers.

* Arizona teachers who seek to qualify to teach dual enrollment: apply now for \$2000 scholarship, at <http://www.azed.gov/titlei/pd-pilot-program/>. Also, sign up **now** for the AZ Teachers Academy at ASU; it got funded & will re-open applications. <http://education.asu.edu/arizona-teachers-academy-at-asu>

* After Jan., AZ teachers can apply for partial tuition scholarship at <http://physics.asu.edu/node/2350>

"Lifelong professional development is as essential for science teachers as it is for doctors. Typically, it takes at least 10 years of deliberate practice to reach a high level of expertise in any profession... Teachers need access to lifelong professional development like that provided in Modeling Workshops."—ASU Prof. David Hestenes, co-founder of Modeling Instruction.

Modeling Workshops: (Each is 3 credits.)

June 5 to 23: (on Tempe campus. MTWTh 8am-3:30pm. 8am - noon on Fridays):

PHS 530/PHY 480: Methods of Teaching Physics I: mechanics with computational modeling - NEW!

(Melissa Girmscheid, instructor. Co-leader TBD. PS-H356)

PHS 531/PHY 494: Methods of Teaching Physics II: e&m (Agatha Andersen & Kirticia Jarrett. PS-H355)

CHM 594/CHM 480: Modeling Instruction in Chemistry I (Justin Sheets & Karola Bond. PS-H366.)

June 26 to Thursday, July 13: (on Tempe campus. MTWThF 8am-3:30pm. No class on July 4):

PHS 594: Modeling Instruction in Light (Mark Schober, from New York. Lynn Jorgensen, trainee. PS-H356)

Courses from June 26 to July 27: (Each is 3 credits. No class on July 4.)

PHS 556: Astrophysics (1:00 – 3:30pm MTWTh. Carl Covatto, instructor. PS-H355)

PHS 540/CHM 540: Integrated Physics & Chemistry (4:00-6:30pm MTWTh. Mitch Sweet, PS-H356)

Info at <http://physics.asu.edu> ; hover over “Degree Programs”. Also visit <http://modeling.asu.edu> and click on *ASU Summer Graduate Program for Teachers of Physical Sciences*. For help with tuition scholarships, CEUs, family & dorm housing, e-mail Jane.Jackson@asu.edu, 480-314-1522. For grad credit, apply to ASU at <http://admission.asu.edu/graduate/nondegree> as a nondegree summer grad student (\$70 appl fee) at least 3 weeks before your course begins -- no transcripts needed. Search for course at <http://webapp4.asu.edu/catalog>. Register for course at least 1 week before course begins.



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