

Schedule T&LPhys 2023

4460/5460 Schedule

subject to change! check back regularly

This page is higher level summary and may not include all the assignments you have each week.

To access these assignments and see the complete listing checkout the [assignments page](https://canvas.colorado.edu/courses/90377/pages/assignments-page)
(<https://canvas.colorado.edu/courses/90377/pages/assignments-page>).

Below **bold** is the topic, **blue** is the reading for everyone, **green** for grads, and **purple** additional info / assignments

Week of:	Tues (PER & Theory)	Thurs: Pedagogy & Practice
1) 1/16 (https://canvas.colorado.edu/courses/90377/pages/week-1)	<p>Introduction: State of Affairs</p> <p>Readings: Redish, Teaching Physics (TP), Chapter 1 (p5-16) (or week 2).</p> <p>Fill-out Background Information</p>	<p>Introduction to PER I</p> <p>(overview of PER and failure of traditional instruction)</p> <p>Readings: McDermott, NPR, Friedman, Beichner,</p> <p>Optional: Add'l Resources from website.</p> <p>Identify Preliminary field-sites</p> <p>Complete statement of teaching philosophy</p>
2) 1/23 (https://canvas.colorado.edu/courses/90377/pages/week-2)	<p>Content-based / Conception- Based research / Early PER:</p> <p>Readings: Trowbridge, McDermott, Pepper,</p> <p>Redish Redish, Teaching Physics (TP), Chapter 1 (p5-16), if you haven't read yet.</p> <p>Optional: Nyguen & Meltzer, ... AJP (2003).</p>	<p>Washington Tutorials</p> <p>Kinematics & 1-D Vectors: Dubson Ch 2; or Knight Ch 2</p> <p>Readings:</p> <p>On student reasoning: Knight5E 1-D vectors pp 71-81</p> <p>McDermott Tutorial Guide,</p> <p>Redish Ch 8, pp 142-152,</p> <p>Grads Finkelstein/Pollock</p> <p>Tutorial in Physics, Kinnematics, (download / familiarize.)</p>

<p>3) 1/30 (https://canvas.colorado.edu/courses/90377/pages/week-3)</p>	<p>Cognition I: Constructivism & Knowledge in Pieces</p> <p>Readings: Redish (TP): Chap 2: : pp 17- 31 and 40-43(half way through page 43); Posner, et al: Accommodation of Scientific Conception...; diSessa, <i>Changing Minds</i> Chapter 5</p> <p>Grads: DiSessa, Coherence versus fragmentation (Only Intro required)</p>	<p>Peer Instruction</p> <p>Vectors, & 2-D kinematics-Vectors, & 2-D: Dubson Ch 3</p> <p>Readings: Knight Five Easy Lesson page 81-94 Mazur:Peer Instruction: Engaging Students One-on-One, All / Redish TP: 124-34</p>
<p>4) 2/6 (https://canvas.colorado.edu/courses/90377/pages/week-4)</p>	<p>Cognition II: Situated Knowledge</p> <p>Readings: TP: Chap 2 29-45; (or to end of chap 2) Brown, Collins, Duguid: Situated Cognition grads: Sfard On Two Metaphors. Skim Finkelstein: Context in the context .. optional: Papert.</p>	<p>SCALE-UP/Studio Physics & Project Workshps</p> <p>Readings TP; pp. 170 – 180 (chap 9)</p> <p>Grads: (Skim at least) Beichner, R. - SCALEUP</p> <p>Final Project:Review guides and goals (https://canvas.colorado.edu/courses/90377/pages/project) for F Project. Take a look at the sample projects (https://canvas.colorado.edu/courses/90377/pages/sample-proj Submit Thinking about your own projects (https://canvas.colorado.edu/courses/90377/assignments/15527</p>
<p>5) 2/13 (https://canvas.colorado.edu/courses/90377/pages/week-5)</p>	<p>Hidden Curriculum: Attitudes & beliefs</p> <p>details are moved to the weekly schedule tab. (see link at left)</p>	<p>More on Lecture Techniques: JiTT and ILD's :</p> <p>details are moved to the weekly schedule tab.</p> <p>link at left)</p>
<p>6) 2/20 (https://canvas.colorado.edu/courses/90377/pages/week-6)</p>	<p>Hidden Curricula][: Metacognition & and Social Psychological Factors</p> <p>Survey of content for last sections of class (https://canvas.colorado.edu/courses/90377/quizzes/296414)</p>	<p>Metacognitive Curricula: Refining Intuition Tu and more)</p>

7) 2/27 (https://canvas.colorado.edu/courses/90377/pages/week-7)	Gender and Race in Physics Education Project outline due here or ??	Inclusive Pedagogy / Teaching Race & Gender
8) 3/6 (https://canvas.colorado.edu/courses/90377/pages/week-8)	Assessment and Evaluation I Project outline due here??	Assessment and Evaluation II
9) 3/13 (https://canvas.colorado.edu/courses/90377/pages/week-9)	Mid Semester review Project work discussions Almost mid- semester feedback (https://canvas.colorado.edu/courses/90377/quizzes/296410) on class due. or project outlines (https://canvas.colorado.edu/courses/90377/pages/project-outline-information) due here for sure...	PER and Experimental Phys /Labs
10) 3/20 (https://canvas.colorado.edu/courses/90377/pages/week-10)	Technology and Physics Education / learning Topics based on student choice	Tech tools for teaching and learning
11) 3/27	Break	Break

<p>12) 4/3 (https://canvas.colorado.edu/courses/90377/pages/week-12)</p>	<p>Goals, history and politics of PER</p>	<p>Project workshop` or project outlines (https://canvas.colorado.edu/courses/90377/pages/outline-information) due please for sure... I mean</p>
<p>13) 4/10 (https://canvas.colorado.edu/courses/90377/pages/week-13)</p>	<p>Educational transformation / institutional change</p>	<p>Transforming (higher) education systems</p>
<p>14) 4/17 (https://canvas.colorado.edu/courses/90377/pages/week-14-progressivism-dewey-and-resources-physport)</p>	<p>Returning to our roots: Dewey and Vygotsky</p>	<p>Physport / Compadre Project draft due Sat.</p>
<p>15) 4/24</p>	<p>Course review/ More student choice / Project work/ Ask me anything ???</p>	<p>Optional Day --- Come work on your project presentation; your project; or anything we do to support you.</p>
<p>16) 5/1</p>	<p>Final Presentations Project Draft revisions due [optional]</p>	<p>Final Presentations</p>
<p>17) Finals week</p>	<p>Noon May 9: Projects due</p>	