

**PHYS 5300-001 and 5300-002  
Spring 2008**

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**Schedule:** T 9:00am – 10:50am; F 11:00 – 11:50am in SC 118

**Office Hours:** By appointment.

**Prerequisites:** none

**Course Text:** Lillian C. McDermott, Peter S. Shaffer and the Physics Education Group, Department of Physics, University of Washington, Tutorials in Introductory Physics and Tutorials in Introductory Physics Homework, (Prentice Hall, Upper Saddle River, NJ, 2002). The text will be supplied for you.

**Course Coverage:** Teaching methods for Tutorials in Introductory Physics, interactive engagement methods with groups, inquiry-based methods, pre- and post-tests, grading and other issues involved with teaching the tutorials.

**The Nature of the Course:** Students will work through a tutorial pre-test and a tutorial each week. There will then be discussion about teaching methods, how to teach the tutorial and issues in conceptual understanding. There will also be time allotted to issues of grading, course administration and other topics.

**Expected Learning Outcomes:**

- 1) Students will be able to teach Tutorials in Introductory Physics effectively, using interactive engagement and inquiry-based techniques.
- 2) Students will understand the nature of the Tutorials in Introductory Physics materials, interactive engagement and inquiry-based techniques.
- 3) Students will be able to grade physics problems that require students to explain their reasoning and physics problems that require both conceptual and quantitative responses effectively.

**Methods for Assessing Expected Learning Outcomes:**

- 1) Students will be observed teaching introductory physics laboratories.
- 2) Students will be evaluated on their discussion of different teaching techniques in class.
- 3) Students' grading of undergraduate students' physics papers will be evaluated.

**Grades:** The grade will be weighted as follows:

Class participation	55%
Evaluation of grading	20%
Evaluation of teaching	25%

Any student who because of a disability may require special arrangements in order to meet course requirements should contact the instructor as soon as possible to make any necessary accommodations. Student should present appropriate verification from AccessTECH. No requirement exists that accommodations be made prior to completion of this approved university procedure.