

# PHYS 416, Thermal and Statistical Physics

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**Instructor:** Prof. F. Robicheaux  
Office: Physics 284  
Office hours: Wed 2:00-3:00, Thu 2:00-3:00.  
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**Prerequisites:** PHYS 310 & 330 & 360

**Text:** Required: *An Introduction to Thermal Physics* by Daniel V. Schroeder  
The tests are open textbook so you probably want to have access to a physical copy (not electronic because you can't have open laptop during test); printout of relevant pages are OK as long as they only have info from the book.

See warning at <https://physics.weber.edu/thermal/> about abridged international versions! Beware!!

Recommended:

*Thermodynamics* by Enrico Fermi (pink Dover not *Thermodynamics & Statistics*)  
*Fundamentals of Statistical and Thermal Physics* by F. Reif  
*Thermal Physics 2<sup>nd</sup> Ed.* by C. Kittel and H. Kroemer

**Website:** <http://www.physics.purdue.edu/~robichf/class.htm>  
This site will have the class notes, problems for each homework, test dates, test solutions, etc. Links to other info as well.

**Homework:** Homework will contain problems from the textbook and other sources. A **single pdf** of your homework will be submitted electronically in brightspace each Thur. before 11:59 pm. IMPORTANT: To help the grader, your homework could contain your name in the name of the file (for example: chris\_smith\_hwk7.pdf). Homework must be easily legible to be graded. Homework turned in after Thur. 11:59 pm will be worth ½ credit. Homework turned in after Fri. 11:59 pm will be worth ¼ credit. Homework turned in after Sat. 11:59 pm will be graded but worth 0 credit. I strongly suggest you not look at the answers before turning in homework. Copying solutions from other students or from the web violates academic honesty.

**Grading:** Homework 10%, 2 Tests 27.5% each, Final 35%

**Topics:** See class web page for likely emphasis.

**Virus Info:** Do not come to class if you feel ill.  
The class policy regarding masks will be the Purdue Univ policy.

**Absences:** Attendance is not required. If you have an *excused absence* for *one* test, you can request a make-up test which will be written specifically for you OR the grade for the missed test will be scaled from the other test and the final. For example, if you miss test 1:  $\text{grade\_1} = \text{avg\_1} [(\text{grade\_2} + \text{final})/(\text{avg\_2} + \text{avg\_fin})]$ . You must get the absence excused by the Office of the Dean of Students!