PHYSICS 306, INTRODUCTION TO THERMODYNAMICS AND
STATISTICAL MECHANICS, SPRING 2020

Time and place TuThu 10:00-11:20 AM, Javitz 101

Instructor: Prof. Edward Shuryak email edward.shuryak@stonybrook.edu,

Teaching assistant: Colin Gordon, email colin.gordon@stonybrook.edu


Supplementary reading: An Introduction to Thermal Physics, Daniel V. Schroeder

This is an introductory course, discussing thermodynamics and statistical mechanics. It
starts with kinetic and thermal theory of gases, and then introduces all concepts of classi-
cal thermodynamics and statistical mechanics. We will use microcanonical, canonical and
other ensembles. We will also study systems with quantum statistics, Bose-Einstein and
Fermi-Dirac ones.

The Blundell textbook is characterized by very short and concise chapters, clear content
and multiple examples, which I hope will help. The lectures will follow the textbook, with
about 2/3 chapters covered and few chapters given just for reading.

Homeworks There will be weekly homework problems, collected for grading (mostly)
on Thursdays

Grading will be distributed between homeworks, Midterm exam and the Final in the
proportion 30% - 30% -40%

Exam policy NO books, printed or photocopied material, no phones or calculators with
memory. Short personal handwritten summary notes allowed.

Stony Brook policies, in respect to academic integrity, disabilities, sick days, religious
observances and other issues students may have during the course are followed: please email
me with any issues you may have.