Guidelines for the Physics Department

Comprehensive Exam

November 2014

1. The physics department comprehensive exam will consist of 5 multiple choice exams covering the topics presented in Physics 106, 110, 120, 240 and 250.

2. The exams will be given twice a semester at roughly 2 month intervals during the semesters in which Physics 490 and Physics 491 are offered and at no other times.

3. You must be in the spring semester of your Junior year and have completed the five foundation courses (Physics 106, 110, 120, 240 and 250) in order to take the exams. If you want to take the exams earlier than this (e.g., to facilitate studying abroad) then you must have explicit written approval from your advisor as well as the instructor in Physics 490/491.

4. Each exam period will be 3 hours long. You may work on any number of the 5 topical exams you want during the exam period. Each of the 5 topical exams will consist of 15 multiple choice questions.

5. You will be given a list of physical constants but you will need to memorize all of the relevant equations needed to take this exam.

6. Please bring something to write with when you take the exam.

7. No calculators are allowed.

8. The exams will be graded in the following way. You get one point for each correctly answered question and no points for questions which are not answered. One quarter of a point will be subtracted for each wrong answer. Since each question has 5 possible answers, statistically speaking, it is worth your while to guess if you can eliminate at least two of the five possible choices.

9. Passing score for a given topic is 7.5. Topical exams may be passed individually in any order you choose. You must pass all 5 topical exams to pass the comprehensive exam.

10. One requirement for obtaining distinction, see Physics Department Distinction Policy for details, requires passing all 5 parts of the exam with combined score of at least 50
of the best of the 5 different topical exams. You may retake the exams in order to improve your combined score.

11. The completed exams are retained by the instructor. Copies of the exams are not to be distributed. Supervised student access to prior exams is at the discretion of the instructor.