



# Colorado Physics

Department of Physics • University of Colorado at Boulder Graduate Program Information

## Preliminary/Qualifying Exams

### Written Exam

#### No Longer Offered

The Physics Department at the University of Colorado no longer offers a written qualifying exam. In spring of 2001, the faculty unanimously voted to replace the written exam with required course work, as outline below. In general the associate chair waives courses for students with graduate level equivalents.

### Oral Exam

#### Modified

In addition to abolishing the written exam, faculty modified the oral exam to better test skills used in professional research. The new examination includes a formal research paper and a formal presentation, followed by a question and answer session. Students usually present a thesis prospectus the semester following the exam. For more details on the modified examination, please visit our website at <http://physics.colorado.edu>.

### Required Course Work

Number	Title	
Physics 5210	Theoretical Mechanics	
Physics 5250 & 5260	Quantum Mechanics I & II	
Physics 7230	Statistical Mechanics	* Required course work marked on schedules below
Physics 7310 & 7320	Electromagnetic Theory I & II	

## Typical Schedules, First Two Years

	<u>Typical math background</u>	<u>Strong math background</u>
<b>First Semester</b>	Physics 5030 Intermediate Math-Physics I Physics 5210* Theoretical Mechanics Physics 5250* Quantum Mechanics I	Physics 5210* Theoretical Mechanics Physics 5250* Quantum Mechanics I Physics 7310* Electro-Magnetic Theory I
<b>Second Semester</b>	Physics 5000+ Physics Elective Physics 5260* Quantum Mechanics II Physics 7230* Statistical Mechanics	Physics 7320* Electro-Magnetic Theory II Physics 5260* Quantum Mechanics II Physics 7230* Statistical Mechanics
<b>Third Semester</b>	Physics 7310* Electro-Magnetic Theory I Physics 5000+ Electives and/or Research	Physics 5000+ Electives and/or Research
<b>Fourth Semester</b>	Physics 7320* Electro-Magnetic Theory II Physics 5000+ Electives and/or Research	Physics 5000+ Electives and/or Research

The schedules above are only guidelines. Students may also transfer courses in, take electives earlier, and enroll in independent study.