## University of California at Berkeley Department of Physics

## **UNDERGRADUATE COURSE & TEXTBOOK LIST**

(Graduate courses may be included.)

Applicant's Name: Huan Quang Bui	
Undergraduate Institution: Colby College	

In order to help us evaluate your undergraduate preparation, please fill out the table below with the physics and mathematics courses you have taken in the last two years of undergraduate study. Include those you plan to take next semester/quarter. If you have taken graduate courses please include these also.

**Domestic applicant:** Please calculate your grade point average for the junior and senior level physics and math courses you have taken: 4.24/4.3

Course Number & Title	Units	Grade	Textbooks Used
MA333: Abstract Algebra	4	4.3	J. Gallian, Contemporary Abstract Algebra, 8th ed.
MA352: Complex Analysis	4	4.3	Churchill & Brown, Complex Variables and Applications, 5th ed.
PH321: Electricity & Magnetism	4	4.0	D.J. Griffiths, Introduction to Electrodynamics, 4th ed.
PH431: Quantum Mechanics	4	4.3	D.J. Griffiths, Introduction to Quantum Mechanics, 2nd ed.
PH491: Independent Study (quantum & classical field theory)	2	4.3	A. Zee, Quantum Field Theory in a Nutshell, 2nd ed.
MA338: Real Analysis	4	4.3	Rudin, Principles of Mathematical Analysis, 3rd ed.
MA434: Topics in Abstract Algebra (algebraic geometry)	4	4.3	Reid, Undergraduate Algebraic Geometry
PH492: Independent Study (qntm. field th. & massive gravity)	2	4.3	A. Zee, Quantum Field Theory in a Nutshell, 2nd ed. & research papers
PH398: Topics in Quantum Information	2	4.3	Mermin, Quantum Computer Science: An Introduction
MA492: Independent Study (research)	4	4.3	Research and reading in measure theory and harmonic analysis. Referenced: Stein's Functional Analysis, Folland's Real Analysis: Modern Techniques and Their Applications,
MA/SC482: Statistical Inference	4	4.0	Hogg, McKean, Craig, Introduction to Mathematical Statistics, 8th ed
MA439: Topics in Real Analysis (topology & func. analysis)	4	IP	Willard, General Topology
MA483: Mathematics Honors Project	4	IP	n/a: Research in mathematical physics & analysis.
PH333: Experimental Soft Matter Physics	4	IP	n/a
PH483: Physics Honors Project	4	IP	n/a
PH491: Independent Study (quantum field theory)	4	IP	Peskin & Schroeder, An Introduction to Quantum Field Theory
PH312: Physics of Fluids (Spring 2021)	4	n/a	not yet listed
MA434: Topics in Abstract Algebra (Spring 2021)	4	n/a	not yet listed